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STATE OF CALIFORNIA  
STATE WATER RESOURCES CONTROL BOARD

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PUBLIC HEARING  
REGARDING WATER RIGHT APPLICATIONS FOR THE  
DELTA WETLANDS PROJECT  
PROPOSED BY DELTA WETLANDS PROPERTIES  
FOR WATER STORAGE ON WEBB TRACT, BACON ISLAND,  
BOULDIN ISLAND, AND HOLLAND TRACT  
IN CONTRA COSTA AND SAN JOAQUIN COUNTIES

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HELD AT  
901 P STREET  
SACRAMENTO, CALIFORNIA  
TUESDAY, JULY 29, 1997  
9:00 A.M.

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\*\*TRANSCRIPT NOT SEQUENTIALLY NUMBERED\*\*

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Reported by: ESTHER F. WIATRE  
CSR NO. 1564

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SACRAMENTO, CALIFORNIA  
TUESDAY, JULY 29, 1997

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04 HEARING OFFICER STUBCHAER: We will reconvene the  
05 Delta Wetlands' water rights hearing. We are in the process  
06 of listing the cross-examination of the Fish and Game panel.  
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08 The next examiner will be Delta Wetlands.

09 MR. COWELL: Mr. Chairman, may I be recognized, please?

10 HEARING OFFICER STUBCHAER: Please identify yourself.  
11 Come to the mike.

12 MR. COWELL: Thank you. My name is Dana Cowell. I  
13 work with the California Department of Transportation at our  
14 Stockton office. I have previously given our address at the  
15 at beginning of the hearings here. And I would simply  
16 request, sir, if possible today, we would very much like to  
17 be able to give our testimony and have our water rights  
18 protest heard on this particular day, in that we have  
19 assembled those people that are going to be part of our  
20 expert witness list here today. And as the primary person  
21 giving presentation, I would not be available after today.  
22 We would respectfully request if we could be heard today,  
23 that that be done.

24 HEARING OFFICER STUBCHAER: It depends -- the response  
25 to your request depends upon the length of the

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01 cross-examination of Fish and Game. I believe that Delta  
02 Wetlands and staff are the only parties remaining to  
03 cross-examine. If that is concluded in a reasonable time,  
04 there is a good chance we can grant your request.

05 MR. COWELL: Thank you for your consideration.

06 HEARING OFFICER STUBCHAER: You're welcome.

07 MS. MURRAY: Mr. Stubchaer, I have one matter for  
08 administration. Department of Fish and Game witness,  
09 Michael Rugg, has not been sworn.

10 HEARING OFFICER STUBCHAER: Thank you.

(Oath administered by Mr. Stubchaer.)

12 MS. MURRAY: If I could ask just a preparatory  
13 question of Mr. Rugg?

14 HEARING OFFICER STUBCHAER: Yes.

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16 FURTHER DIRECT TESTIMONY BY DEPARTMENT OF FISH AND GAME  
17 BY MS. MURRAY

18 MS. MURRAY: Could you please state and spell your  
19 name for the record?

20 MR. RUGG: Michael Rugg, R-u-g-g.

21 MS. MURRAY: Is DFG Exhibit 12 a correct copy of your  
22 qualifications.

23 MR. RUGG: Yes, it is.

24 MS. MURRAY: Could you please summarize your  
25 qualifications?

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01 MR. RUGG: I am a water quality biologist with the  
02 Department of Fish and Game. I've got a Master's degree in  
03 fisheries biology from Humboldt State in 1970. I have been  
04 a water quality biologist with the Department of Fish and  
05 Game within Region 3, the Bay Area, since that time, 27  
06 years. Working with major dischargers, Regional Water  
07 Quality Control Boards, State Board, thermal discharges, and  
08 what have you.

09 MS. MURRAY: And for the Court Reporter, can each of  
10 you just say your name.

11 MS. MCKEE: Deborah McKee.

12 DR. RICH: Dr. Alice A. Rich.

13 MR. SWEETNAM: Dale Sweetnam.

14 MR. WERNETTE: Frank Wernette.

15 MS. MURRAY: Thank you.

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17 CROSS-EXAMINATION OF DEPARTMENT OF FISH AND GAME  
18 BY DELTA WETLANDS PROPERTIES  
19 BY MS. BRENNER

20 MS. BRENNER: Good morning, Mr. Stubchaer. I am going  
21 to start the cross-examination of Department of Fish and  
22 Game and most of my questions will be focused on the HMP, or  
23 Habitat Management Plan, and the Biological Opinion as it  
24 corresponds to the HMP; and then Mr. Nelson will be taking  
25 it from there and will have many more questions than I have

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01 regarding fish, terrestrial species -- not terrestrial  
02 species, but fishery resources in much more detail than the  
03 Biological Opinion.

04 So, you will see a little bit of the questions that Mr.  
05 Nelson asks will go back to some of the terrestrial  
06 species, but just briefly, with regards to the Biological  
07 Opinion.

08 Part of what I am trying to do is clarify the record,  
09 especially with regard to Mr. Wernette's testimony.

10 Hi, Frank.

11 MR. WERNETTE: Good morning.

12 MS. BRENNER: In your June 6, 1997 testimony, you  
13 submitted Exhibit DFG-1, which you describe as providing a  
14 preview of the terrestrial portion of the Department of Fish  
15 and Game BO or Biological Opinion on the Delta Wetlands  
16 Project. Correct?

17 MR. WERNETTE: Yes, it is.

18 MS. BRENNER: The Biological Opinion terrestrial  
19 portions do not contain a number of the items that you  
20 previewed in your DFG-1 in your first piece of testimony.  
21 In several instances the measures that you were identifying  
22 as reasonable and prudent measures, in your first set of  
23 testimony, were not contained as reasonable and prudent  
24 measures in the Biological Opinion. Is that correct?

25 MR. WERNETTE: That's correct.

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01 MS. BRENNER: So, my question is: Given those  
02 inconsistencies, which one overrides, the Biological Opinion  
03 or your testimony labeled as DFG-1?

04 MR. WERNETTE: Any reasonable and prudent measures

05 identified in the Department's Biological Opinion would be  
06 the final determination of what the RPMs would be.

07 MS. BRENNER: When your testimony was previewed, the  
08 Biological Opinion, with regard to terrestrial species,  
09 indicated that those reasonable and prudent measures would  
10 exist and then became what is referenced as conservation  
11 measures.

12 Those are now just simply recommendations by the  
13 Department of Fish and Game?

14 MR. WERNETTE: That is correct. Anything that didn't  
15 -- there are a few exceptions, but for the most part, the  
16 reasonable and prudent measures that Department decided not  
17 to include normally or typically became additional  
18 recommendations that under -- that don't have any law or  
19 backing under CESA, but, under CEQA, we believe are  
20 necessary to reduce impacts.

21 MS. BRENNER: So, you're basing your conservation  
22 measures on a CEQA analysis?

23 MR. WERNETTE: That's correct.

24 MS. BRENNER: We have these type of inconsistencies,  
25 Mr. Stubchaer, and I am not quite sure what to do with

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01 Frank's, or Mr. Wernette's, excuse me, first set of  
02 testimony. But I would like to indicate that I think that  
03 because of these inconsistencies we may move to strike Mr.  
04 Wernette's Exhibit 1 or DFG Exhibit 1 because of those  
05 inconsistencies. It's very confusing what is actually going  
06 on with the Department of Fish and Game, the Biological  
07 Opinion, the first set of testimony compared to the second  
08 set of testimony.

09 MS. MURRAY: Mr. Stubchaer, I think Mr. Wernette made  
10 it very clear that this was a preview of what might be the  
11 Biological Opinion. What his, maybe his own personal  
12 opinion in DFG Exhibit 1 is potentially different than what  
13 came out as DFG Exhibit 11 in the Biological Opinion. That  
14 is no reason to strike his testimony.

15 MS. BRENNER: Are you indicating that Exhibit DFG-1 is  
16 Mr. Wernette's personal opinion?

17 MS. MURRAY: There are portions which may be his own  
18 personal opinion.

19 MS. BRENNER: So now we have maybe some personal  
20 opinion as inconsistent with the Biological Opinion from a  
21 Department of Fish and Game employee.

22 HEARING OFFICER STUBCHAER: Then you say you may move  
23 to strike, too, so we have --

24 MS. BRENNER: I'll go ahead and move to the strike on  
25 the basis it is inconsistent.

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01 HEARING OFFICER STUBCHAER: Ms. Murray, I would like to  
02 hear your legal, not testimony but, opinion on which -- on  
03 the answer to the first question that Ms. Brenner asked  
04 which governs, which is --

05 MS. MURRAY: I think Mr. Wernette correctly answered  
06 that the Biological Opinion, the reasonable and prudent  
07 measures contained in the Biological Opinion are those that  
08 govern.

09 HEARING OFFICER STUBCHAER: All right.

10 Did you make a motion to strike?

11 MS. BRENNER: I would like to make a motion to strike.  
12 DFG-1 is completely inconsistent with the Biological  
13 Opinion. Therefore, has no weight, has no relevancy to this  
14 hearing, and just creates confusion in the record.

15 HEARING OFFICER STUBCHAER: Speaking of the record, we  
16 are going to go off the record for a minute.

17 MS. BRENNER: Thanks.

18 (Discussion held off the record.)

19 MS. LEIDIGH: My recommendation is that the objection  
20 be noted in the record but overruled and that the objection  
21 go to the weight of the evidence in DFG-1. That Board will  
22 look at the RPMs in DFG-1 and compare it with the RPMs in  
23 the Biological Opinion and will not treat those that are in  
24 DFG-1 that are not in the Biological Opinion as Biological  
25 Opinion. There will be the rationale that these are based

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01 on CEQA but not part of the Endangered Species Act. My  
02 recommendation is that it be treated in that fashion and  
03 that it go to the weight of the evidence.

04 HEARING OFFICER STUBCHAER: That will be my ruling.

05 MS. BRENNER: Could I add one other portion to this  
06 confusion?

07 Part of what Mr. Wernette did in DFG-1 is place  
08 reasoning behind some of the reasonable and prudent measures  
09 which now do not exist as reasonable and prudent measures.  
10 So, when he says those are now recommendations of some sort  
11 under CEQA, what did he do with some of the reasoning that  
12 was set forth in DFG-1 with regard to those previously  
13 reasonable and prudent measures that are now just sort of  
14 recommendation? The reasoning is different under CESA  
15 versus CEQA analysis.

16 MS. LEIDIGH: I think it probably goes to the weight of  
17 the evidence, as to that reasoning, and I would recommend  
18 that DF&G attorney, when she files her closing statement,  
19 explain the legal rationale for those particular  
20 recommendations.

21 MS. MURRAY: And again, for that clarification, there  
22 are very few changes, not a major issue and the biological  
23 rationale will remain the same.

24 MS. BRENNER: This same question with regard to the  
25 terrestrial statement is going to arise with regard to

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01 fisheries. Thank you.

02 Page 4 of your testimony Mr. Wernette, last paragraph,  
03 Recommended Water Rights Conditions. You indicate  
04 management of the habitat islands and reservoir islands, in  
05 this manner is necessary to offset impacts to wintering  
06 waterfowl such as tundra swan. The top paragraph states:

07 The project, as presently described with  
08 implementation of HMP, avoids significant  
09 unmitigated adverse impacts to wintering  
10 waterfowl, greater sandhill cranes,  
11 Swainson's hawks, wintering and resident  
12 raptors, wintering and resident passerine  
13 birds, and populations of small mammals.

14 (Reading.)

15 And, in addition, you noted in your oral summary that  
16 the HMP fully mitigates for sandhill crane and Swainson's  
17 hawk; is that correct?

18 MR. WERNETTE: That's correct.

19 MS. BRENNER: If your testimony indicates so, why would  
20 we need management of the reservoir islands to offset the  
21 impacts to wintering waterfowl?

22 MR. WERNETTE: In the case of the initial analysis that  
23 we completed with the HMP team, we completed our own  
24 independent analysis using the habitat evaluation procedure.  
25 And for some species of waterfowl we believe the HMP would  
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01 not fully offset the value, and so a substantial value of  
02 the reservoir islands when they are not being used for  
03 storage. So that, if you know the 10 or 15 percent of the  
04 time where it could be managed for shallow waterfowl  
05 habitat, those additional values would help offset losses to  
06 waterfowl species that are more difficult to mitigate in.

07 In the case of -- as our Department made its final  
08 policy determination in terms of the project and what was  
09 necessary to offset impacts from a CEQA standpoint, the  
10 final conclusion was that the HMP would offset the impact to  
11 waterfowl and that there was nothing specific under CEQA to  
12 manage the reservoir islands. The incidental management of  
13 the reservoir islands, during non storage periods, would be  
14 added to the habitat islands and offset the waterfowl  
15 resources, but not be required from our Department's point  
16 of view.

17 MS. BRENNER: Can you read back to me what Mr. Wernette  
18 just said?

19 (Record read as requested.)

20 MS. BRENNER: Are you indicating that under CESA or  
21 CEQA you would have management of the reservoir islands for  
22 wintering waterfowl habitat?

23 MR. WERNETTE: At the time that this testimony was  
24 prepared and submitted, which was prior to our Department's  
25 final conclusion about what was going to be in our CESA  
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01 document and what our final CEQA document or comments would  
02 be, at that point, staff believed that that incidental value  
03 of the reservoir islands added to the habitat management  
04 islands would fully offset waterfowl losses.

05 What I am saying now is that the final conclusions of  
06 the Department were that those reservoir islands, the  
07 incidental benefits of those, are an enhancement or plus of  
08 the project, but are not required to offset waterfowl  
09 effects.

10 MS. BRENNER: What you indicate in your original  
11 exhibit, or your original testimony, is no longer the case  
12 with regard to the reservoir islands?

13 MR. WERNETTE: That is correct.

14 MS. BRENNER: There is no -- are you indicating that  
15 there is no need for any reasonable and prudent measures  
16 with regard to the reservoir islands?

17 MR. WERNETTE: In my view, I don't believe so.

18 MS. BRENNER: The HMP fully compensates for the  
19 wildlife and wetland impacts caused by Delta Wetlands'

20 reservoir operations?

21 MR. WERNETTE: That is correct.

22 One thing I might add, Barbara, is that we still have  
23 concerns about the management of the reservoir islands when  
24 they are managed in the shallow water condition. So, that  
25 doesn't mean we are disinterested in what happens on a

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01 reservoir island. Because when they are managed in shallow  
02 water habitat, we have concerns, they are not concerns, but  
03 typical management issues that have to be dealt with in  
04 terms of how waterfowl use those to make sure there is not  
05 disease outbreaks and concentrations of waterfowl that  
06 adversely affect the Delta and, you know, potentially cause  
07 increased risk of disease outbreaks.

08 Those are typical management issues that will be dealt  
09 with in the normal course of the operation.

10 MS. BRENNER: Why would -- the frequency with which the  
11 reservoir islands could be managed as shallow water wetlands  
12 is not predictable, correct?

13 MR. WERNETTE: It isn't with certainty. It is based on  
14 the modeling that Jones & Stokes completed for this Board.  
15 We have an estimate based on that 70 years of hydrology.

16 MS. BRENNER: There is no indication in the analysis  
17 that these particular -- during non storage periods, these  
18 particular reservoir islands could be managed as shallow  
19 water wetlands?

20 MR. WERNETTE: Could you repeat that, Barbara?

21 MS. BRENNER: There is no indication, nothing in the  
22 analysis, that says that definitely Delta Wetlands can  
23 manage these reservoir operations when there is no water  
24 there, no water storage going on, as shallow water wetlands,  
25 correct? There is no guarantee of that, Frank, right?

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01 MR. WERNETTE: There is definitely no guarantee. We  
02 have a sense of how often that will happen by just looking  
03 at the modeling runs to see whether any opportunities occur  
04 for Delta Wetlands to divert water, you know, at all in any  
05 particular year, including late spring or even mid summer  
06 when that would interfere with the normal operation of the  
07 seasonal wetland. So, there aren't very many years when  
08 that occurred, when there is no diversion opportunities at  
09 all during the fall through late summer. Because under any  
10 of those conditions, which are, like I say, just a handful,  
11 there would be opportunities to manage those islands in a  
12 shallow water condition. But it is just by inspection and,  
13 you know, obviously no guarantees.

14 MS. BRENNER: You are not taking into consideration any  
15 kind of water quality ramifications, are you, when you are  
16 talking about shallow water wetlands or shallow managed  
17 wetlands?

18 MR. WERNETTE: Can you clarify?

19 MS. BRENNER: You are not taking into consideration  
20 other parameters or other things that Delta Wetlands may  
21 need to take into consideration with regard to shallow  
22 wetland?

23 MR. WERNETTE: Only from the standpoint that the  
24 Department has specific recommendations about the habitat

25 islands, that when they are managed in that condition, we're  
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01 recommending to this Board that Thermal Plan requirements  
02 apply to the condition of those habitat islands.

03 MS. BRENNER: I am just talking about reservoir  
04 islands. When you take into consideration the shallow water  
05 wetlands and the idea that there may be some opportunity at  
06 times for Delta Wetlands to have shallow water wetlands, you  
07 are not considering any other parameters, such as water  
08 quality, when you're speaking or in your consideration?

09 MR. WERNETTE: If I can add one thought to my other  
10 comment, Barbara, if that is okay?

11 MS. BRENNER: Sure.

12 MR. WERNETTE: That is that the -- just the discharges  
13 from the reservoir islands, we'd probably would be  
14 consistent with how we perceive our habitat islands in terms  
15 of discharges. Under neither case would we consider other  
16 water quality issues.

17 The only thing we determined or recommended was a  
18 infrastructure within the reservoir islands which will  
19 automatically be in place on the habitat islands when it is  
20 developed, that the ability to manage water supplies  
21 effectively and keep water moving, drain ponds where there  
22 are problems with water quality or, say, wildlife diseases,  
23 that we wanted some ability to manage the reservoir islands  
24 in the same way. So Delta Wetlands, in the project  
25 description, includes a infrastructure that is not real

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01 sophisticated, but it does allow for the ability to manage  
02 water during those shallow water periods on the reservoir  
03 islands, which we think is important just for normal,  
04 routine management of wetlands.

05 MS. BRENNER: Isn't it true the only mention in the HMP  
06 of the reservoir islands are these types of operations?

07 MR. WERNETTE: That operations I just described,  
08 Barbara?

09 MS. BRENNER: Yes.

10 MR. WERNETTE: I believe that is correct.

11 MS. BRENNER: I would appreciate it if you didn't coach  
12 your witness.

13 MS. MURRAY: I'm thinking out loud, sorry.

14 MS. BRENNER: Thanks.

15 Isn't it true that the HMP only anticipated  
16 conservation easements for compensation habitat, which is on  
17 the Bouldin and Holland Tracts?

18 MR. WERNETTE: Could you repeat that, Barbara, please?

19 MS. BRENNER: HMP only anticipated conservation  
20 easements for compensation habitat, and the compensation  
21 habitat only exist on the Bouldin and Holland Tracts?

22 MR. WERNETTE: I really can't remember how the HMP  
23 addressed conservation easements at all.

24 MS. BRENNER: Is it your opinion that the conservation  
25 easements is necessary for compensation habitat only?

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01 MR. WERNETTE: The Department, typically, when there is  
02 a project and there are going to be requirements for  
03 developing habitat and management of that habitat, have a

04 standard practice of asking for conversation easements. So  
05 that the lands that are being set aside for management are  
06 going to have value for wildlife will have an easement  
07 which, basically, describes that habitat or that land being  
08 managed consistent with what is being required or  
09 recommended or requested by the project description. So  
10 that the land will be continued to be managed consistent  
11 with those uses that would allow for the perpetuation of  
12 wildlife value and achievement of habitat values that we  
13 hope to gain from management of the project.

14 MS. BRENNER: Those are the habitat management islands,  
15 right?

16 MR. WERNETTE: In this project case, the bulk of the  
17 habitat values definitely be provided on the two habitat  
18 islands.

19 MS. BRENNER: Now you are crossing, Frank; you are  
20 saying the bulk. Earlier I just indicated or you just  
21 indicated that the Habitat Management Plan compensated for  
22 all the wildlife impact.

23 MR. WERNETTE: That's correct. I probably didn't  
24 clarify myself when I said the bulk. What I said was the  
25 value produced by the project, in a general sense, not

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01 whether it stacks up on the CEQA requirements or CESA, that  
02 when you look at the project over time, most of the values  
03 that is produced by this project for wildlife will occur on  
04 the habitat island, because the reservoir islands will only  
05 incidentally be available for habitat.

06 MS. BRENNER: The HMP was developed to meet the staff  
07 requirements to fully compensate for wildlife and wetland  
08 impacts?

09 MR. WERNETTE: That's correct.

10 MS. BRENNER: When we talk about wildlife or  
11 compensation habitat, where the Department has agreed that  
12 that would occur on the habitat islands and not the  
13 reservoir islands?

14 MR. WERNETTE: That's correct.

15 MS. BRENNER: I don't want you to go back to the fact  
16 that -- I just want to make the record clear that that is  
17 the Department's position, and I don't want the record to  
18 get confused with the idea that, certainly, there could be  
19 some wildlife benefits from the reservoir islands. I think  
20 that we all recognize that; that those are not required  
21 benefits, are they?

22 MR. WERNETTE: They are not.

23 MS. BRENNER: Thank you.

24 You included an example of the conservation easement  
25 deed proposed for reservoir and habitat islands; isn't that

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01 correct?

02 MR. WERNETTE: That's correct.

03 MS. BRENNER: And don't both of those easements  
04 reference, state, that they are provided mitigation for  
05 certain impacts of the Delta Wetlands Project, pursuant to  
06 CESA, MOU, and management agreement between Delta Wetlands  
07 and CFG?

08 MR. WERNETTE: I believe they do.

09 MS. BRENNER: But no such agreements have been reached,  
10 have they?

11 MR. WERNETTE: No, they haven't.

12 MS. BRENNER: Isn't it a case that for both of these  
13 conservation easements allow Delta Wetlands to use the  
14 islands for stored water and for project purposes, but only  
15 as set forth herein and contained in the Wildlife Habitat  
16 Management Plan?

17 MR. WERNETTE: Yes.

18 MS. BRENNER: Isn't it true that the HMP does not  
19 dictate reservoir island operation?

20 MR. WERNETTE: That's correct.

21 MS. BRENNER: Don't each of these conservation deeds  
22 provide that Delta Wetlands conveys the CFG various  
23 interests, including all water rights necessary to protect  
24 and to sustain the biological resources of the property and  
25 all present and future development rights?

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01 MR. WERNETTE: Yes.

02 MS. BRENNER: You are indicating that that is necessary  
03 for the reservoir islands?

04 MR. WERNETTE: It is not.

05 MS. BRENNER: It is not. Okay.

06 MR. WERNETTE: The introduction of the conservation  
07 easement language, just for clarification, we drafted four  
08 sample conservation easements for the purposes of what we  
09 originally thought would be a 2081 management agreement with  
10 Delta Wetlands. This was done probably over 18 months ago.  
11 The way that the conservation easements are introduced in  
12 our opinion are that we are using them as sample language,  
13 and, when we introduce them, we say that easements  
14 substantially along the lines of the wording in the  
15 particular attachment, would be recommended for conservation  
16 easement ultimately. I don't think that -- well, in my  
17 opinion, that doesn't necessarily require that easements be  
18 exactly worded as they are. And one of the -- in my mind,  
19 at least one of the things that happened in development of  
20 the policy and the position of the Department along CESA was  
21 that we didn't change any of the language in any of those  
22 conservation easements, in those sample easements.

23 So, as a byproduct of us developing our final position  
24 on the 16th of June, those two easements probably contain  
25 language that is not consistent with the conclusions that I

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01 am reaching here or explaining today.

02 MS. BRENNER: That seems to be the case. That is what  
03 I am trying to clarify for the record.

04 The conservation easement then, referencing the  
05 reservoir islands is not necessary, correct?

06 MR. WERNETTE: They are not.

07 MS. BRENNER: In the Biological Opinion there is an RPM  
08 included for the yellow-billed cuckoo as being necessary to  
09 minimize the adverse impact on take.

10 Doesn't the Biological Opinion note at Page 9 that CFG  
11 accepts no immediate effect on species such as the  
12 yellow-billed cuckoo, giant garter snake, western pond  
13 turtle, or black rail?

14 MR. WERNETTE: That's correct.

15 MS. BRENNER: However, Fish and Game notes that once  
16 the habitat islands are operational, suitable habitat will  
17 likely be restored and benefit these species. So, is your  
18 RPM intended to protect the yellow-billed cuckoo, even  
19 though the yellow-billed cuckoo is not known to occur on the  
20 Delta Wetlands' islands?

21 MR. WERNETTE: If I can just explain a little bit. The  
22 reason that we included reasonable and prudent measures for  
23 wildlife that we believe will be attracted to habitat  
24 management islands is to alleviate the need to having to  
25 reconsult with the Board or deal with 2081 agreement with  
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01 Delta Wetlands. So we were incorporating the type of  
02 measures, avoidance measures, that would allow us to make  
03 findings with regards to those other state listed species,  
04 to alleviate the need to having to reconsult and come back  
05 again every time a new species was found on the site.

06 We feel strongly that the habitat management islands  
07 will be very successful and restore habitat that these  
08 species use and is not currently found on the project. So  
09 to advance a strategy of not having to revisit the issue  
10 time and time again, to give the management authorization or  
11 at least authorization for take, made sense to us, to be  
12 proactive and to have those issues dealt with up front.

13 MS. BRENNER: Did you bring those issues up during the  
14 HMP consultation process?

15 MR. WERNETTE: I cannot remember during the  
16 development, the work our team did whether those issues  
17 specifically came up. In other words, whether these  
18 wildlife, these listed species would begin to utilize the  
19 habitat islands, and, therefore, we would want to have  
20 measures to deal with it under CESA.

21 I remember us talking about the potential for these  
22 species to -- habitat to be restored and for those species  
23 to begin to use the habitat islands, but I don't remember  
24 the CESA connection.

25 MS. BRENNER: Do you recognize that some of these RPMs  
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01 for these additional species that may some day come on to  
02 the habitat islands included reasonable and prudent measures  
03 for preconstruction surveys?

04 MR. WERNETTE: That is correct.

05 MS. BRENNER: So, even before the habitat management  
06 islands are developed, you've got an RPM measure for species  
07 that doesn't exist on that island?

08 MR. WERNETTE: Well, we would require no surveys in  
09 habitat that is unsuitable at this point. But what we  
10 anticipated was in the future with the adaptive management  
11 program, John Winther may decide he wants to move a  
12 recreational facility or there maybe a need to expand the  
13 landing strip on Bouldin Island, and may be there would be  
14 some other opportunities or things that come up that we  
15 can't anticipate now, and that when habitat is developed, we  
16 wanted to trigger the typical types of preconstruction  
17 surveys before those modifications were made, assuming that  
18 the habitat was present and the species could be there.

19 MS. BRENNER: But they're not there?  
20 MR. WERNETTE: I am talking in the future.  
21 MS. BRENNER: You are talking in the future?  
22 MR. WERNETTE: That's correct.  
23 MS. BRENNER: You are talking that they may occur after  
24 the Habitat Management Plan is in place or the habitat  
25 islands are developed?  
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01 MR. WERNETTE: That's correct.  
02 MS. BRENNER: But your measures are prior to that  
03 phase, even the activities that the measurements require are  
04 activities that must occur prior to the development of the  
05 habitat islands?  
06 MR. WERNETTE: You know, the language -- I haven't  
07 looked at the language very recently, but the language is  
08 intended to make conscious decisions about what surveys are  
09 required, are really required of habitat. It is not  
10 present, but is suitable for these species, then there would  
11 be no preconstruction surveys required for yellow-billed  
12 cuckoo, for instance.  
13 In 20 years from now when there is substantial riparian  
14 habitat developed, then there is a need to do some  
15 construction and there is a strong possibility that that  
16 species is present, then that measure would kick it.  
17 MS. BRENNER: But that is not how the measure is  
18 written, is it?  
19 MR. WERNETTE: I would have to look it up and see. It  
20 could be that the language, the way it is written, is  
21 confusing and implies that there is an elaborate survey  
22 requirement for species that we know do not currently exist  
23 on the project.  
24 MS. BRENNER: Those species would include the  
25 yellow-billed cuckoo, California black rail, giant garter  
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01 snake?  
02 MR. WERNETTE: If work is being done on the water side,  
03 it is possible that the black rail could be affected. But  
04 it is our strong opinion that the surveys that were done by  
05 Jones & Stokes for the Board indicated that there is no  
06 suitable giant garter snake habitat, and we know there are  
07 no suitable habitat conditions out there for the cuckoo.  
08 MS. BRENNER: But you've got reasonable and prudent  
09 measures for each one of those terrestrial species in your  
10 Biological Opinion?  
11 MR. WERNETTE: That's correct. Whether it is worded  
12 clearly or not, the intent is for it to be a fairly  
13 long-lasting document that will stay current and adaptable  
14 like the adaptive management program.  
15 MS. BRENNER: Just as the conservation easements,  
16 perhaps the Biological Opinion needs to be revised slightly?  
17 MR. WERNETTE: Definitely.  
18 MS. MURRAY: I object to that question. I think it is  
19 argumentative.  
20 MS. BRENNER: It is argumentative?  
21 HEARING OFFICER STUBCHAER: It's overruled.  
22 MR. WERNETTE: I am not sure of the right format for  
23 doing it, but there definitely are opportunities for

24 clarification, and whether the Department issues a letter  
25 for clarification after they are raised by the project. We

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01 often have a chance to work through these issues for  
02 clarification during the discussion, during the development  
03 of 2090 or 2081. We unfortunately didn't have that  
04 opportunity to work through these issues which probably  
05 would have brought these up and allowed for clarification.  
06 So, I think that clarification very likely could come  
07 later.

08 MS. BRENNER: How many years did it take to develop the  
09 HMP?

10 MR. WERNETTE: It seems like a long time.

11 MS. BRENNER: It is a long time in consultation  
12 process, hasn't it been?

13 MR. WERNETTE: From the terrestrial side?

14 MS. BRENNER: From either side.

15 MR. WERNETTE: It was a tremendously long time in terms  
16 of developing the Habitat Management Plan, but we didn't  
17 really spend very much time in the specifics of the, at that  
18 time, 2081 management agreement or later on under the 2090  
19 process. We spent very little time talking about the  
20 specifics of that document. If we would have done that, we  
21 would have likely be able to file through some of these, at  
22 least, areas where there was confusion and be able to  
23 clarify it so everybody would be on the same page.

24 MS. BRENNER: And you were at a majority of those  
25 meetings, were you not?

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01 MR. WERNETTE: For Habitat Management Plan?

02 MS. BRENNER: Yes.

03 MR. WERNETTE: Yes.

04 HEARING OFFICER STUBCHAER: I would like to interrupt  
05 and ask a question of you, Mr. Wernette.

06 Does the Department of Fish and Game have what  
07 Secretary Babbitt calls a deal is a deal on the habitat  
08 conservation plans?

09 MR. WERNETTE: I don't believe so. If I can expand, I  
10 think that direction that our Department is going is more  
11 along the lines of, you know, we don't want to set  
12 developers up for surprises or we don't want to set them up  
13 for failures. So I think that the direction that your  
14 biologists have is to work very carefully to anticipate  
15 future conditions that would end up in conflicts so that the  
16 developers can move forward with some certainty.

17 We have some very formal NCCP processes where there are  
18 very clearly identified mechanisms so there are no  
19 surprises. But we don't have an equivalent of Secretary  
20 Babbitt's a deal is a deal.

21 HEARING OFFICER STUBCHAER: Mr. Nelson.

22 MR. NELSON: Mr. Wernette, you mentioned the fact that  
23 you did not have a chance to go over thoroughly the  
24 Biological Opinion before it was issued. Isn't it true  
25 Delta Wetlands asked that it would receive a draft

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01 Biological Opinion before it was issued as a final?

02 MR. WERNETTE: Joe, could I clarify something real

03 quick before I answer that?

04 MR. NELSON: Sure.

05 MR. WERNETTE: You introduced that question with the  
06 statement that I hadn't had a chance to look over the  
07 Biological Opinion before it was introduced. I think what I  
08 said was that I was -- it has been a while since I looked at  
09 specific language in that opinion as records to, for  
10 instance, the conservation easement language. That part is  
11 definitely clear.

12 Would you ask the second part of your question again,  
13 please?

14 MR. NELSON: With respect to the other areas that you  
15 had not looked at for quite a while, isn't it true that  
16 Delta Wetlands asked for a draft Biological Opinion to be  
17 submitted prior to the issuance of its final, Fish and  
18 Game's final Biological Opinion?

19 MR. WERNETTE: That's correct.

20 MR. NELSON: Was such a draft ever provided to the  
21 Board or Delta Wetlands?

22 MR. WERNETTE: In the closing days of our development  
23 of our opinion, the Department did not provide a draft of  
24 our opinion prior to the issuance of our final opinion. The  
25 drafts that were provided, we had provided previous drafts

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01 of 2081 agreement and earlier versions of the opinion for  
02 discussion and for feedback from the project proponents.

03 When you look at the Biological Opinion that we have  
04 now, we did not provide that as a draft.

05 MR. NELSON: Thank you.

06 I would like to first talk about in your oral summary  
07 last week you discussed the reasonable and prudent measures  
08 and other conservation recommendations that the Department  
09 had put together in the Biological Opinion.

10 Patty, could you put up the comparison table?

11 This is a table after Fish and Game's oral testimony  
12 last week; we worked up a comparison table, which is simply  
13 for discussion purposes right now. If the Board wishes us  
14 at the end of this cross to introduce it as an exhibit, we  
15 will.

16 HEARING OFFICER STUBCHAER: If we are going to refer to  
17 it during this cross-examination, I would think it needs to  
18 be identified and copies provided so the record will be  
19 complete.

20 MR. NELSON: We have copies for the Board and  
21 additional copies for people in the audience.

22 MS. LEIDIGH: I think we are going to get an exhibit  
23 number for this so that we can refer to it more easily.

24 MS. BRENNER: It will be DW-34.

25 HEARING OFFICER STUBCHAER: Off the record.

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01 (Discussion held off the record.)

02 HEARING OFFICER STUBCHAER: We are back on the record.

03 MS. LEIDIGH: The exhibit that is up on the screen and  
04 which has just being handed out is Delta Wetlands 34.

05 HEARING OFFICER STUBCHAER: I notice there are six  
06 pages, so we will probably have to refer to the page number  
07 as well as exhibit number for the record.

08 MR. NELSON: For the record, the title of the exhibit  
09 is Comparison Table of State and Federal Biological  
10 Opinions.

11 MS. LEIDIGH: Excuse me, Mr. Sutton just informs me  
12 there already is a Number 34, so we will have to renumber  
13 this as 35.

14 MR. NELSON: Just to provide some orientation, the  
15 three columns: U.S. Fish and Wildlife Service Biological  
16 Opinion. It is taken from Exhibit DW-1, which was the Fish  
17 and Wildlife Service final Biological Opinion.

18 The NMFS Biological Opinion column was taken from  
19 Exhibit DW-1, and the Fish and Game Biological Opinion  
20 column is from DFG Exhibit 11.

21 As an initial matter, Mr. Wernette, isn't it true that  
22 Fish and Game under CESA is required to conduct a joint  
23 consultation with Fish and Wildlife Service and NMFS?

24 MR. WERNETTE: Section 2085 encourages joint  
25 consultation. So that is the section that we go by in terms  
0036 of projects that have both federal and state lead agency.

02 MR. NELSON: Did you conduct a joint consultation with  
03 the federal agency?

04 MR. WERNETTE: I'd say, for the most part, we did have  
05 a joint consultation, but at the conclusion of our  
06 discussions, during consultation, I would say at the end it  
07 wasn't a joint consultation, at the end.

08 HEARING OFFICER STUBCHAER: Excuse me, I would like to  
09 ask a question. Regarding your first answer, the question  
10 was, "Did it require." And you said it encourages, if I  
11 remember correctly. Is a joint consultation required?

12 MS. MURRAY: That is kind of a legal question. And,  
13 no, it is not required, if you want him to answer.

14 MR. NELSON: Mr. Stubchaer, with respect to fact that  
15 CESA directs several things. Number one, it directs that a  
16 joint coordination of the federal and state consultations  
17 occur. Secondly, it also has provision, I believe it is,  
18 2096 or 2097, which specifically states, "If Fish and Game  
19 is having to undergo a consultation, that it should also  
20 notify the federal agencies and request such a joint  
21 consultation."

22 And the general practice has been that a joint  
23 consultation occur, and that is what happened in this case.

24 HEARING OFFICER STUBCHAER: That is a should, not shall.

25 MR. NELSON: I believe it says encouraged and it is the  
0037 policy of CESA.

02 HEARING OFFICER STUBCHAER: Thank you.

03 MR. NELSON: How long did the joint consultation with  
04 Fish and Wildlife Service and NMFS and Fish and Game last?

05 MR. WERNETTE: I don't remember the exact time, but at  
06 least the last two years.

07 MR. NELSON: Would you -- is it possible it started in  
08 May '94 and lasted three years?

09 MR. WERNETTE: That is possible.

10 MR. NELSON: During the time -- isn't it true that  
11 there were over 40 meetings that were joint meetings between  
12 Fish and Game and Fish and Wildlife Service and NMFS and the

13 Corps?

14 MR. WERNETTE: I would say that is a fairly reasonable  
15 estimate.

16 MR. NELSON: What was the purpose of those meetings?

17 MR. WERNETTE: Obviously, the purpose of meeting was to  
18 -- multiple purposes, but the initial meetings were designed  
19 to evaluate the project, potential impacts of the project,  
20 potential benefits of the project, and reach concurrence, or  
21 at least have discussions to the point where we can identify  
22 mitigation measures to be included in, ultimately, an  
23 opinion.

24 Some of the meetings were strictly dealing with  
25 winter-run. Some of the meetings were strictly with Delta

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01 smelt. Later on we actually combined those meetings so that  
02 we could talk about most species at the meeting. So, the  
03 goal obviously of those meetings was, ultimately, and our  
04 goal and the fish and wildlife agencies was, to come up with  
05 an opinion that was consistent with all three fish and  
06 wildlife agencies.

07 MR. NELSON: Isn't it true that in approximately  
08 December '95, the three agencies put together a draft which  
09 was called an Aquatic Resources Management Plan that had a  
10 number of operational criteria proposed for the Delta  
11 Wetlands Project?

12 MR. WERNETTE: Yes, that's correct.

13 MR. NELSON: Isn't it true that was the base from which  
14 the Final Operations Criteria that is Exhibit DW-3 was  
15 developed?

16 MR. WERNETTE: I believe it was.

17 MR. NELSON: Since May 1995 the discussions at those  
18 meetings were generally centered around the Final Operations  
19 Criteria and how the draft Biological Opinions addressed  
20 those?

21 MR. WERNETTE: Yes.

22 MR. NELSON: Looking at Exhibit DW-35, which is up on  
23 the overhead, and going through, are you familiar with Fish  
24 and Wildlife Service and NMFS Biological Opinions?

25 MR. WERNETTE: Yes, I am. I think those members of our  
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01 panel are more familiar or have more detailed knowledge of  
02 the Fish and Wildlife Service Opinion in the case of Mr.  
03 Sweetnam and Deborah McKee with the NMFS opinion.

04 MR. NELSON: First with Mr. Sweetnam, is your  
05 understanding that the three reasonable and prudent  
06 measures, that are identified on the left-hand column under  
07 U.S. Fish and Wildlife Biological Opinion, are the only  
08 reasonable and prudent measures directed by Fish and  
09 Wildlife Service?

10 MR. SWEETNAM: No. I haven't looked at it in a  
11 while, so I can't answer specifically if those are the only  
12 three in there. I would have to look it up.

13 MR. NELSON: When you reviewed the Fish and Wildlife  
14 Service Biological Opinion, do you remember reviewing the  
15 reasonable and prudent measures?

16 MR. SWEETNAM: I will have to look it up. I have it  
17 here.

18 They have actually three reasonable and prudent  
19 measures on Page 36 of the Biological Opinion. They look to  
20 be similar.

21 MR. NELSON: Ms. McKee, looking at the reasonable and  
22 prudent measures, in the middle column under NMFS Biological  
23 Opinion, are those four measures a general summary of the  
24 four RPMs that are included in the NMFS Biological Opinion?  
25 MS. McKEE: You don't have clarified whether it is for  
0040 steelhead or winter-run chinook salmon.

01 steelhead or winter-run chinook salmon.  
02 MR. NELSON: Isn't it true that steelhead and the  
03 winter-run chinook salmon are substantially similar RPM?  
04 MS. McKEE: There are some that are missing that are  
05 for steelhead, such as measures to reduce entrainment  
06 effects.

07 MR. NELSON: Excuse me. I am not sure --  
08 MS. McKEE: Page 45 of the National Marine Fishery  
09 Service.

10 MR. NELSON: Isn't that measure to reduce entrainment  
11 effects, fish screening?  
12 MS. McKEE: Yes. I am just telling you whether or not  
13 there are RPMs that are still missing. For purposes of  
14 winter-run, I think that might be correct, but not  
15 necessarily for steelhead as well.

16 MR. NELSON: Ms. McKee, are you looking at number one  
17 under the middle opinions that says installation of fish  
18 screens?  
19 MS. McKEE: I am looking at the actual language in the  
20 opinion, which states measures shall be taken to reduce the  
21 extent of entrainment and predation during Delta Wetlands'  
22 diversion operations through the use of properly designed  
23 fish screens.

24 So it is not exactly the same.  
25 MR. NELSON: Ms. McKee, looking at Page 46 of the NMFS  
0041 Biological Opinion, which is the next page right after what  
01 you read, isn't it true --  
02 you read, isn't it true --  
03 MS. MURRAY: Is this the winter-run opinion?  
04 MR. NELSON: This is the winter-run Biological Opinion  
05 which includes a conference opinion with steelhead.  
06 Looking at -- then looking back at Page 40 of the  
07 Biological Opinion which includes the winter-run measures,  
08 isn't it true that those two measures are exactly the same?  
09 MS. McKEE: No.  
10 MR. NELSON: Can you tell me how they differ?  
11 MS. McKEE: Reasonable and prudent measure number one  
12 for winter-run and reasonable and prudent measure number one  
13 for steelhead also include language regarding measures shall  
14 be taken to reduce the extent of entrainment and predation  
15 during diversion operations through the use of properly  
16 designed fish screens.

17 I guess I don't think it is quite the same as number  
18 one.  
19 MR. NELSON: That is a summary, isn't it? What I am  
20 asking is the NMFS term one of RPM, RPM number one from the  
21 winter-run chinook salmon is the same as RPM number one for  
22 steelhead; isn't that correct?

23 MS. McKEE: Yes.  
24 MR. NELSON: Isn't it true that RPM number one for  
25 winter-run chinook salmon and steelhead generally refers to  
0042  
01 installation of fish screens?  
02 MS. McKEE: And measures taken to reduce the extent of  
03 entrainment and predation.  
04 MR. NELSON: Can you identify what measure in RPM one,  
05 either in winter-run chinook or in the steelhead RPM,  
06 addresses measures reducing the extent of entrainment and  
07 predation?  
08 MS. McKEE: It includes criteria for conducting  
09 hydraulic monitoring programs, and evaluations of the  
10 performance of the fish screens, conformance of criteria,  
11 and ensure that the screens are adequately operated and  
12 maintained, submission of proposed operations and  
13 maintenance plans, log records that shall be submitted.  
14 MR. NELSON: I hate to belabor this point, but aren't  
15 all those measures addressing the fish screen installations  
16 in the procedures and processes for their operation?  
17 I don't need an answer; I'll move on.  
18 Now, looking at Fish and Game Biological Opinion, Mr.  
19 Wernette, when you were summarizing the Biological Opinion  
20 you identified just a couple of your reasonable and prudent  
21 measures. I think, particularly, you identified the  
22 environmental water and the large diversions.  
23 Isn't it true that you have 18 different reasonable and  
24 prudent measures in your Biological Opinion?  
25 MR. WERNETTE: That's correct.  
0043  
01 MR. NELSON: Those cover not just March diversions and  
02 environmental water, but cover terrestrial species as well  
03 as other fish issues?  
04 MR. WERNETTE: That's correct. Most of the other  
05 reasonable and prudent measures deal with terrestrial  
06 issues. There are at least two that I can think of that  
07 apply also to aquatics.  
08 MR. NELSON: Now, walking down through those first two  
09 prohibitions on March diversions and requirements for  
10 storage and release of up to 20 percent of diverted water,  
11 you have already described those to the Board, haven't you?  
12  
13 MR. WERNETTE: Yes.  
14 MR. NELSON: Could you please explain to me what the  
15 purpose of the -- you have also discussed with Ms. Brenner  
16 number three. Could you explain to me the purpose of the  
17 RPM with respect to 200 acres shallow shoal habitat or low  
18 elevation tidal wetlands to be restored and maintained?  
19 MR. WERNETTE: You want me to explain what it means?  
20 MR. NELSON: Explain the purpose for the RPM.  
21 MR. WERNETTE: In our consultation and the discussions  
22 with the fish and wildlife agencies, we came to agreement  
23 that 200 acres of shallow shoal habitat would be a  
24 reasonable estimate of the amount needed to offset effects  
25 of the project in terms of changes in rearing habitat in  
0044  
01 Suisun Bay from the upward shift of X2 during project

02 operation. And the 200 acres was agreed to by all three  
03 fish and wildlife agencies.

04 The difference was that in the discussion under the  
05 NMFS and the Fish and Wildlife Service opinions they allowed  
06 for the obtaining, at least the way I read them, allowed for  
07 obtaining a conservation easement on existing habitat that,  
08 albeit, was, quote-unquote, not already protected. So, you  
09 know, not already owned, for instance, by the State of  
10 California, as being a way to offset the impacts or to  
11 achieve the 200 acres of habitat.

12 Our Department believed that -- we agreed with that 200  
13 acres of habitat impact, but believed that obtaining  
14 conservation easement on existing habitat didn't achieve the  
15 goals of what we intended with the development of that 200  
16 acres. So, ours, basically, was worded that there will be  
17 restoration and manage of an additional 200 acres of  
18 habitat, not just an easement over 200 acres of existing  
19 habitat.

20 MR. NELSON: Is it now correct then what you just  
21 stated, that Delta Wetlands is now obligated to restore and  
22 maintain 200 acres for Fish and Game and then also acquire a  
23 separate easement, 200 more acres, for Fish and Wildlife  
24 Service? Is that what you are stating?

25 MR. WERNETTE: No. I would assume that -- the service  
0045 is silent on this issue, both Fish and Wildlife and NMFS.  
01 The easement granted and on this 200 acres of developed,  
02 restored habitat would satisfy their opinion and our  
03 opinion.

04 MR. NELSON: Isn't it true that the distinction between  
05 restoring and maintaining and acquiring an easement for the  
06 protection is a significantly different requirement?

07 MR. WERNETTE: It is a different requirement on the  
08 project. I recognize that.

09 MR. NELSON: In this case, you are asking for 200 acres  
10 to be restored in the Suisun Marsh and Bay or the Western  
11 Delta?

12 MR. WERNETTE: That is correct.

13 MR. NELSON: That to the extent that Delta Wetlands is  
14 asked by Fish and Wildlife Service to obtain an easement for  
15 properties to which habitat is outside of those areas, you  
16 would not allow that to occur under your fish and game  
17 Biological Opinions; isn't that correct?

18 MR. WERNETTE: I think that is a fair statement.  
19 Rather than the Fish and Wildlife Service coming to Delta  
20 Wetlands and saying we want you to get these 200 acres, we  
21 envision a more collaborative process, from the standpoint  
22 of looking at potential areas for restoration. So that the  
23 habitat requirements described here would satisfy all three  
24 fish and wildlife agencies.

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01 Our intent is not to put this requirement in addition  
02 to. So, during our discussion, I anticipate that we will  
03 come up with a piece of land that will satisfy both Fish and  
04 Wildlife Service and NMFS and the provisions of this.

05 MR. NELSON: Were you involved in the discussion  
06 between Delta Wetlands, the Board, The Corps, and the two

07 federal agencies when they were discussing this habitat of  
08 200 acres of habitat conservation easement?

09 MR. WERNETTE: Yes. We were present in the meetings,  
10 but the discussions were principally between Delta Wetlands,  
11 the Corps, and the two fish and wildlife agencies. The  
12 language that they negotiated amongst themselves between the  
13 solicitor, the interior solicitor, and Delta Wetlands'  
14 attorneys were pretty much discussed and negotiated directly  
15 between those two parties. We were present in the room, but  
16 we were really not -- did not participate in those  
17 discussions.

18 MR. NELSON: Did you have the right to participate?

19 MR. WERNETTE: Do we have a right to participate?

20 MR. NELSON: Yes.

21 MR. WERNETTE: We were not excluded from the meetings.

22 MR. NELSON: Were you given copies of the language  
23 that was being discussed?

24 MR. WERNETTE: Yes.

25 MR. NELSON: Did you comment on that language?

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01 MR. WERNETTE: I don't remember commenting on the  
02 language because it was -- one, it was a set of words or set  
03 of descriptions that were being negotiated between Delta  
04 Wetlands' attorneys and the interior solicitor and not  
05 really one that we were asked to comment on and provide our  
06 legal -- to get our Department's legal review. So, we could  
07 probably have commented on it, but we were not solicited for  
08 those comments.

09 MR. NELSON: You were in the room when the matter was  
10 being discussed, and it was being discussed generally,  
11 wasn't it?

12 MR. WERNETTE: Yes.

13 MR. NELSON: Since it was a joint consultation, could  
14 you speak up, and could you express your opinion?

15 MR. WERNETTE: At that point, I believe I think  
16 everyone would have allowed us to speak up and present our  
17 opinion. At that point, though, in our view, the nature of  
18 the consultation really evolved into one that was dealing  
19 directly between the federal fish and wildlife agencies,  
20 project proponent, and the Corps. We were more in an  
21 advisory or as a spectator. I would describe it, in terms  
22 of the specific discussions that were going on between Fish  
23 and Wildlife Service and Delta Wetlands, at that point.

24 MR. NELSON: Did you ever ask for clarification as to  
25 your status in these consultation meetings?

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01 MR. WERNETTE: I don't recall saying that specific  
02 question. I think our -- later on we did have some specific  
03 meetings that were scheduled with Delta Wetlands and the  
04 Department to deal with those issues that hadn't been dealt  
05 with, you know, during the discussions between the federal  
06 agencies and Delta Wetlands.

07 MR. NELSON: When you were -- during these joint  
08 consultation meetings, did you also have separate meetings  
09 with Fish and Wildlife and NMFS where you discussed, outside  
10 of meetings with the Board and the Corps and Delta Wetlands,  
11 what issues would be raised?

12 MR. WERNETTE: I think prior to the separate  
13 discussions that were going on between the federal agencies  
14 and Delta Wetlands, which, you know, I can't remember,  
15 sometime in mid 1996, we had meetings between our agency,  
16 NMFS, Fish and Wildlife Service, and even EPA, when the  
17 discussions became more focused between the federal  
18 agencies, for instance, when Delta Wetlands began to meet  
19 individually with National Marine Fishery Service. We did  
20 not have any further -- at least to my memory, did not have  
21 any specific meeting where we met individually with the fish  
22 and wildlife agencies.

23 MR. NELSON: Isn't it true that the meetings picked up  
24 in about July '96 where there were quite a few meetings  
25 going on during that time period?

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01 MR. WERNETTE: I can't remember if that is when that  
02 frequency increased or the nature of the meetings changed.

03 MR. NELSON: When you identified the fact that Delta  
04 Wetlands had a separate meeting with National Marine Fishery  
05 Service, didn't that occur in August?

06 MR. WERNETTE: I can't remember the date.

07 MR. NELSON: Isn't it true that Fish and Game met with  
08 Fish and Wildlife Service, the NMFS to coordinate their  
09 positions on items both in late August and early September?

10 MR. WERNETTE: I can't remember those dates as being  
11 specific meetings where we met individually. We started  
12 meeting among the fish and wildlife agencies in what I  
13 recall was fall of '95, when we began to develop the Aquatic  
14 Resources Management Plan that you had mentioned, Joe,  
15 earlier.

16 We had quite a few meetings to try to come to  
17 conclusions and present one united set of criteria to Delta  
18 Wetlands so there weren't three separate agencies coming  
19 with three different programs.

20 I don't remember us, and we very well could have had,  
21 in the late summer of '96, some additional discussion. I  
22 just don't recall them.

23 MR. NELSON: Let's move to Number 5.

24 No water storage operations prior to  
25 completion of the improvements called for in

0050

01 the HMP. (Reading.)

02 Are you familiar with that RPM?

03 MR. WERNETTE: Yes.

04 MR. NELSON: Can you explain what you refer to as  
05 completion of the improvements called for the HMP?

06 MR. WERNETTE: It is fairly general in terms of what we  
07 would describe as having those improvements completed. I  
08 think during our Habitat Management Plan discussions, we  
09 anticipated about a two year implementation of the Habitat  
10 Management Plan. We didn't expect all the habitat to be  
11 restored at that time because some of the habitat will take  
12 many years to restore, and we dovetailed that in with what  
13 we remembered was an estimate on Delta Wetlands' part that  
14 it might take two years to develop a reservoir island. So,  
15 that is really all I can add to that.

16 MR. NELSON: You are not suggesting that Delta Wetlands

17 had to wait 20 years until the habitat comes to its full  
18 fruition on those two habitat islands before you can start  
19 storing water?

20 MR. WERNETTE: No.

21 MR. NELSON: Can you identify -- outside of  
22 approximately two years, can you identify any specific  
23 trigger point after which Delta Wetlands could start storing  
24 water under this term?

25 MR. WERNETTE: The footprint described in the Habitat  
0051

01 Management Plan in terms of habitat acreages, the types of  
02 treatment, once those are developed and infrastructures put  
03 in place, in my view, that would satisfy the requirement of  
04 this particular wording.

05 MR. NELSON: The next one, I don't have any questions  
06 other than to clarify that 6.1 through 6.6 is the protocol  
07 for fish monitoring program in which you provide fairly  
08 detailed criteria for trawling with respect to the  
09 requirement for a qualified fishery biologist acceptable to  
10 DF&G to be supervising it, and then also criteria with  
11 respect to the actual trawling actions that will take  
12 place.

13 HEARING OFFICER STUBCHAER: Please answer orally.

14 MR. WERNETTE: That is correct.

15 HEARING OFFICER STUBCHAER: He nodded.

16 MR. WERNETTE: I apologize.

17 MR. NELSON: Isn't it true that in the fish monitoring  
18 program that have been developed in the Final Operations  
19 Criteria, such details were going to be left to a joint  
20 discussion and consultation between all three federal  
21 agencies?

22 MR. WERNETTE: That's correct. I think the survey  
23 methods that are described fairly detailed, but still  
24 conceptually developed by Keith Marine and Dave Vogel with  
25 other participants was one that really described the

0052  
01 framework for this monitoring and how the sampling would  
02 occur, and did recognize the bulk of the detail would be  
03 worked out later.

04 MR. NELSON: To the extent that the fish monitoring  
05 plan --

06 (Computer interruption.)

07 HEARING OFFICER STUBCHAER: You were saying to the  
08 extent that, and then I interrupted you.

09 MR. NELSON: To the extent that the later discussions  
10 which Delta Wetlands is still required to undertake with  
11 Fish and Game, NMFS, and Fish and Wildlife Service, on this  
12 monitoring program, to the extent those discussions produce  
13 different criteria for trawling methods, then what is  
14 identified here in this reasonable and prudent measure,  
15 isn't it true that Delta Wetlands would then have to  
16 reconsult and reinitiate this Biological Opinion to revise  
17 those RPMs?

18 MR. WERNETTE: Again, I think it would be a choice that  
19 wouldn't be mine. It would be my management's in terms of  
20 whether there is a need to render a revised Biological  
21 Opinion to the Board or a clarification or modification

22 letter that would go to the Board that would make what is in  
23 our Biological Opinion consistent with what we discuss later  
24 on in greater detail.

25 MR. NELSON: Moving to Page 2 of DW-35. RPM 7.0

0053

01 actually covers a number of different areas with respect to  
02 management measures and monitoring for sandhill cranes and  
03 Swainson's hawk; isn't that correct?

04 MR. WERNETTE: Yes.

05 MR. NELSON: With respect to those RPMs, you have a  
06 requirement that a monitoring plan be provided for  
07 Swainson's hawk and greater sandhill crane prior to the  
08 close of the water rights hearing record; isn't that correct?

09 MR. WERNETTE: Yes.

10 MR. NELSON: Has there been any discussion on the  
11 monitoring plan for Swainson's hawk or greater sandhill  
12 crane?

13 MR. WERNETTE: There is some brief discussion under the  
14 HMP, but no detailed discussion that I am aware of with  
15 respect to a specific monitoring plan for these two species.

16 MR. NELSON: So, it is your position that the Board  
17 cannot close this hearing record until such a monitoring  
18 plan is provided?

19 MR. WERNETTE: The way this is worded, it would  
20 encourage or suggest that we would have the details of that  
21 plan worked out prior to the Board closing of the hearing  
22 record, and that we would allow or we would have the  
23 capability of presenting that monitoring plan, a joint plan  
24 worked out among all of us, the consultants probably for the  
25 Board, and become part of the hearing record.

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01 MR. NELSON: Can you explain why such a monitoring plan  
02 would be necessary, given the scope of the HMP and the  
03 management measures that are already provided for?

04 MR. WERNETTE: I think we fully anticipate that the  
05 program described in the HMP will be successful. However,  
06 to fulfill our CESA obligation and to make sure that the  
07 Board does also its obligation, we want to make sure that we  
08 provide the framework, have a plan in place that allows us  
09 to document to all of us that we've successfully achieved  
10 the goals that we think we will have really no trouble  
11 achieving with the HMP.

12 MR. NELSON: Is such a monitoring plan absolutely  
13 necessary for the Board's consideration of this water rights  
14 permit?

15 MR. WERNETTE: When taken individually, it may not  
16 appear that it is. In combination with the HMP and  
17 management of the habitat islands and our ability to  
18 effectively monitor it and document the success, we believe  
19 it is part of the overall package that is necessary to  
20 achieve that.

21 MR. NELSON: Is it true that this is the only  
22 monitoring plan that would be required to be submitted to  
23 the Board before the close of this hearing record?

24 MR. WERNETTE: I don't recall whether we have a  
25 similar requirement or description with regards to -- well,

0055

01 I don't know the answer to that, Joe. I think that some of  
02 the discussions about other monitoring plans be applied to  
03 other recommendations that the Department has made that are  
04 not reasonable and prudent measures, so you could be  
05 correct.

06 MR. NELSON: Moving to 8.1 and 8.2. Which is the RPM  
07 for listed plants, you state that in 8.2 you have a  
08 statement that all levee projects must be preceded by  
09 preparations and adoptions of specific plans, detailing the  
10 project impacts, mitigation, and compensation measures that  
11 will reduce impacts to result in no net loss of riparian  
12 fishery or wildlife habitat pursuant to State Water Code  
13 Sections 8610 and 8611.

14 Can you please explain whether your reference to all  
15 levee projects is for the habitat islands or for both the  
16 habitat islands and the reservoir islands?

17 MR. WERNETTE: In our view, it applies to all four  
18 islands. When we are talking about the project islands, we  
19 are referring to all four islands?

20 I might mention in here, just for clarification, you  
21 may have some additional questions to ask about this,  
22 presently we don't have any state listed plants at the two  
23 project islands or the two habitat islands. So, again, this  
24 is one that we geared more to the future as opposed to the  
25 present.

0056

01 There are species that are listed or that are described  
02 as rare under the Native Plant Act, but don't have the same  
03 protection under CESA.

04 MR. NELSON: If and when there are such plants  
05 identified on these levees, that is when this measure would  
06 be triggered?

07 MR. WERNETTE: That is correct.

08 MR. NELSON: And to the extent that these listed plants  
09 are not on those levees, Delta Wetlands would not be  
10 required to develop a monitoring plan until such an event  
11 occurs; is that correct?

12 MR. WERNETTE: That is correct.

13 MR. NELSON: We have already -- Ms. Brenner already  
14 covered, to a large extent, the yellow-billed cuckoo  
15 provisions, earlier. I do have some questions with respect  
16 to the giant garter snake, which is RPM provision 10.1 to  
17 10.5.

18 This, again, goes to whether or not this RPM would  
19 trigger immediately or if it is only triggered upon an  
20 identified presence of giant garter snakes on the island?

21 MR. WERNETTE: In the case of the giant garter snake,  
22 it would be the development, establishment of suitable  
23 habitat, that would begin to trigger this, as opposed to a  
24 specific determination that the species was found, because  
25 we may not know that until you actually begin to do

0057

01 surveys.

02 MR. NELSON: Now, isn't it true that you not only have  
03 survey requirements here, but also construction  
04 prohibitions?

05 MR. WERNETTE: That is correct.

06 MR. NELSON: Would those construction prohibitions  
07 apply immediately or after this suitable habitat is created?

08 MR. WERNETTE: It would apply after, in the future.

09 MR. NELSON: What is the basis for applying a RPM for  
10 the existence, just on the basis of existence of a suitable  
11 habitat?

12 MR. WERNETTE: Well, the question you are asking first  
13 was whether these would apply now or in the future, and we  
14 answered, I answered that it would be the future when  
15 suitable habitat was developed.

16 There is no certainty that these will be repopulated,  
17 the giant garter snakes. We recognize that. So the  
18 population of known garter snakes are well removed from  
19 this particular site. So, we are not going to automatically  
20 trigger these measures because they are suitable habitat,  
21 because it isn't a certain that this will be repopulated.  
22 So we are going to depend pretty heavily upon the surveys  
23 that will be conducted prior to construction, before some of  
24 these construction limits are going to be applied.

25 MR. NELSON: Are you saying the survey requirement  
0058

01 would apply to identify, would apply after suitable habitat  
02 exists and the other restrictions would only apply if those  
03 surveys identified giant garter snakes to be present on the  
04 islands?

05 MR. WERNETTE: I think -- I don't remember the exact  
06 wording, but certainly the intent is that we will apply  
07 these criteria when giant garter snakes are present on the  
08 island, not in conditions where the giant garter snake is  
09 not there.

10 MR. NELSON: Does part of the RPM make that statement?

11 MR. WERNETTE: I might take a moment.

12 MS. MURRAY: Take a minute to read.

13 MR. WERNETTE: Take a minute to read it.

14 In a real cursory look, I didn't notice any reference  
15 to specific preconstruction surveys in this measure 10 or  
16 any of its sub elements. The only reference that I can see  
17 is at the bottom of Page 50, under 10.5, there is a  
18 discussion about any giant garter snake surveys required by  
19 DF&G shall be completed to the satisfaction of DF&G prior to  
20 deep watering. So, there isn't a specific reference, at  
21 least as far as my cursory look, that requires, suggests,  
22 that there is a preconstruction survey to identify presence  
23 or absence.

24 MR. NELSON: Lets move on. I need to pick up the pace  
25 a little bit. I don't have any other questions on the RPMs  
0059

01 that you are identifying. I would like to move to Page 3 of  
02 Exhibit DW-35.

03 Mr. Sweetnam, are you familiar with the Fish and  
04 Wildlife Service Biological Opinions, conservation  
05 recommendations?

06 MR. SWEETNAM: I would to have look at them again.  
07 You are asking me are these, on Page 3, are the same as the  
08 ones that are in the Biological Opinion?

09 MR. NELSON: No. Just generally whether you are  
10 familiar with them?

11 MR. SWEETNAM: They look familiar, but that is about  
12 all I can say.

13 MR. NELSON: Is it your understanding that the  
14 conservation recommendations, included in Fish and Wildlife  
15 Service Biological Opinion, are directed towards actions  
16 that the Corps should take generally and not to project  
17 specific actions?

18 MR. SWEETNAM: I don't understand your question.

19 MR. NELSON: Isn't it true that the conservation  
20 recommendations identified in the Fish and Wildlife Service  
21 Biological Opinion direct or recommend to the Army Corps of  
22 Engineers that it takes certain actions generally, but that  
23 that conservation or condition is not a specific measure  
24 addressing Delta Wetlands Project operations only?

25 MR. SWEETNAM: It says conservation recommendations  
0060  
01 are service suggestions regarding discretionary agency  
02 activities to promote the recovery the listed species.

03 Does that answer your question?

04 MR. NELSON: Is it your understanding that those  
05 conservation measures are directed to specific Delta  
06 Wetlands Project actions or are they generally applicable to  
07 all Corps activities?

08 MR. SWEETNAM: I don't want to -- that sounds like you  
09 are asking me for the Fish and Wildlife Service  
10 recommendation on their own Biological Opinion. You are  
11 asking me how they would implement their own Biological  
12 Opinion?

13 MR. NELSON: I am asking your understanding of what  
14 that measure does.

15 MR. SWEETNAM: Basically, I think they are asking --

16 MS. MURRAY: I am going to object because he is asking  
17 really what did the Fish and Wildlife Service intend. I  
18 think that Dale is not a member of Fish and Wildlife  
19 Service, and I think he is saying that he doesn't know what  
20 they intended.

21 HEARING OFFICER STUBCHAER: The last question was what  
22 is his understanding of them. He can answer that.

23 MS. MURRAY: So, he changed the question, what is your  
24 understanding.

25 Respond to the best of your knowledge.

0061  
01 MR. SWEETNAM: I think they are general  
02 recommendations, not necessarily directed specifically at  
03 Delta Wetlands.

04 MR. NELSON: Thank you.

05 Ms. McKee, are you familiar with the conservation  
06 recommendations that are put in the NMFS Biological Opinion?

07 MS. McKEE: Yes.

08 MR. NELSON: Are those recommendations also general to  
09 Corps activities and not specific to Delta Wetlands  
10 operations?

11 MS. McKEE: They actually say it quite succinctly.  
12 They say these conservation recommendations include  
13 discretionary measures that the Corps can take to minimize  
14 or avoid adverse effects of the proposed actions on a listed  
15 species or critical habitat or regarding the development of

16 information.

17 MR. NELSON: Is your understanding that they are  
18 general recommendations?

19 MS. McKEE: It is my understanding that they are  
20 general recommendations to the Corps. I can't say whether  
21 or not it is only specific to this project or if it is  
22 general to all projects.

23 MR. NELSON: Thank you.

24 Mr. Wernette, in drafting the additional conservation  
25 measures, are those measures the equivalent of conservation  
0062 recommendations in federal Biological Opinion?

02 MR. WERNETTE: They are not.

03 MR. NELSON: They are not? Under CESA, the additional  
04 conservation measures are not conservation equivalent of  
05 conservation recommendations?

06 MR. WERNETTE: Let me back up, my question. I am not  
07 familiar with the specific language in the Endangered  
08 Species Act, the federal Endangered Species Act.

09 HEARING OFFICER STUBCHAER: Ms. Murray, are you writing  
10 him a note?

11 MS. MURRAY: No. I'm writing down the question.  
12 Actually fighting, over the microphone here.

13 I believe this calls for a legal conclusions on the  
14 federal law, which I will stipulate that Mr. Wernette is not  
15 an expert on federal law.

16 MR. NELSON: I would state that Mr. Wernette authored  
17 the Biological Opinion. He certainly knows what the  
18 additional conservation measures are, and he has been, was  
19 involved in the joint consultation from NMFS, Fish and  
20 Wildlife Service, the Corps, and the Board on this. And he  
21 certainly has his own understanding and knowledge of this  
22 process.

23 That is all I am asking is, what his knowledge is as to  
24 whether the additional conservation measures are the  
25 equivalent measures or an equivalent measure to conservation  
0063 recommendations.

02 MS. MURRAY: I still think that calls for a legal  
03 conclusion.

04 HEARING OFFICER STUBCHAER: To the best of your  
05 ability, answer the question. If you can't, say --

06 MR. WERNETTE: The reason I responded the way I did to  
07 the initial question, Joe, was not from a standpoint of  
08 understanding completely what is in federal law under the  
09 Endangered Species Act, but from the standpoint -- first of  
10 all, we don't often get to see these recommendations made by  
11 the federal agencies because they are made internally, and  
12 we don't know what they ultimately are going to say until  
13 the opinion comes out.

14 But the nature of our recommendations to this Board are  
15 founded in CEQA as opposed to NEPA and any other  
16 requirements that -- again, I am not aware under the federal  
17 act. My answer was from the standpoint that they are very  
18 different in the sense that our recommendations to this  
19 Board are our opinion about what is needed to reduce impacts  
20 to less than significant levels, and, I would assume,

21 substantially different than at least the philosophy behind  
22 the recommendations being made by both the Fish and  
23 Wildlife Service and National Marine Fishery Service.  
24 MR. NELSON: The additional conservation measures are  
25 identified in your Biological Opinion, are they not?  
0064  
01 MR. WERNETTE: They are.  
02 MR. NELSON: They are not based on CESA; they are only  
03 based on CEQA?  
04 MR. WERNETTE: They are based on CEQA only because they  
05 are not required under the California Endangered Species  
06 Act.  
07 MR. NELSON: So, if they are not based on CESA, why are  
08 they the equivalent of Biological Opinion?  
09 MR. WERNETTE: That is a reasonable question. I don't  
10 know that the direction we had in terms of drafting  
11 Biological Opinion, that there was no specific reason why we  
12 couldn't have made those recommendations to this Board in  
13 our testimony. We made it pretty clear in our opinion that  
14 those measures are not necessary to reduce the effects of  
15 incidental take or under CESA. So, to a great extent likely  
16 that we wanted to present an entire package of the types of  
17 measures that we thought that would together include the  
18 necessary conditions to avoid -- not only to reduce it,  
19 adverse effects of incidental take, but to reduce the  
20 effects of less than significant levels.  
21 MR. NELSON: Is it true that the initial conservation  
22 measures that you have are projects specific and not general  
23 in nature?  
24 MR. WERNETTE: They are project specific.  
25 MR. NELSON: Because you are only applying CEQA  
0065  
01 standards, you are not basing them on impacts or effects on  
02 listed species, then?  
03 MR. WERNETTE: No. We are also basing them on impacts  
04 to listed species because we believe that even with the  
05 reasonable and prudent measures, that there are still  
06 remaining significant impacts on listed species.  
07 MR. NELSON: Maybe I need to have some clarification.  
08 When you were developing additional conservation measures,  
09 were you developing them based upon the standard in CESA or  
10 a standard in CEQA?  
11 MR. WERNETTE: CEQA.  
12 MR. NELSON: So, when judging these, they have to be  
13 judged under that CEQA standard, not under anything under  
14 CESA?  
15 MR. WERNETTE: That's correct.  
16 HEARING OFFICER STUBCHAER: Mr. Nelson, how much longer  
17 do you think your examination will take?  
18 MR. NELSON: Having gone through this, I can now  
19 hopefully get to some of the meat of what I thumbed through  
20 and wanted to get through, so the Board understood what  
21 their whole Biological Opinion is.  
22 I think it is going to take probably two to two and a  
23 half hours to go through the rest of what I have.  
24 HEARING OFFICER STUBCHAER: Additional?  
25 MR. NELSON: Additional. I apologize for the slowness

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01 of this cross.

02 HEARING OFFICER STUBCHAER: Let's take our morning  
03 break now.

04 (Break taken.)

05 HEARING OFFICER STUBCHAER: We will reconvene the  
06 hearing.

07 Mr. Nelson.

08 MR. NELSON: Mr. Wernette, I have one quick question  
09 that arose out of my earlier questioning. With respect to  
10 the requirement that the monitoring plan for Swainson's hawk  
11 and greater sandhill crane be submitted prior to the close  
12 of the water rights hearing record, do you mean the close of  
13 this hearing, as this Thursday, or do you mean some other  
14 point in time?

15 MR. WERNETTE: I am not sure what it means by the close  
16 of the hearing record. I am assuming the hearing record is  
17 going to be kept open beyond Thursday, but I am not sure  
18 exactly what that means in terms of the Board and its  
19 process.

20 MR. NELSON: May I ask the Board what the stance is on  
21 the hearing record?

22 HEARING OFFICER STUBCHAER: My understanding is, and  
23 it is subject to correction by our more expert staff, is  
24 that you may keep the hearing record open after the close of  
25 this hearing to accept closing briefs and then close the

0067

01 record. Is that correct?

02 MS. LEIDIGH: Generally, that is true. Also, if there  
03 were specific exhibits that had not been physically  
04 delivered to the Board yet, those exhibits could be the  
05 subject of holding the record open, if nobody had an  
06 objection and if they seemed to be needed.

07 There is always the danger, though, that in cases like  
08 that, that there might be a need for cross-examination of  
09 the exhibits, and that would go into any decision on the  
10 part of Hearing Officer to keep the record open. That is  
11 discretionary.

12 HEARING OFFICER STUBCHAER: As long as the record is  
13 open, it makes it almost impossible for us to do the  
14 analysis and draft decisions. I think the hearing record is  
15 likely to be closed after the closing arguments are  
16 received.

17 MR. NELSON: Thank you, Mr. Stubchaer.

18 In trying to speed it up a little bit, I wanted to --

19 HEARING OFFICER STUBCHAER: Did you want to go back to  
20 that question? You have a question pending.

21 MR. NELSON: Didn't realize we had a question pending.  
22 I've completely forgotten my question.

23 My co-counsel just informed me that Mr. Wernette never  
24 answered my question which was: In light of -- actually, I  
25 will rephrase it.

0068

01 In light of the Board's statement as to when the  
02 hearing record will be closed, was it the intention of that  
03 RPM to require a monitoring plan to be finalized,  
04 negotiated, and submitted to the Board in that time period?

05 MS. MURRAY: Can I clarify, that the Department will,  
06 prior to the closing on Thursday, request that the hearing  
07 record remain open for the purpose of getting this plan in.  
08 I haven't made that motion yet or request yet because it  
09 hadn't come up. It is now up and we did plan to make that  
10 request.

11 HEARING OFFICER STUBCHAER: And we haven't ruled on the  
12 request. I ask the witness to answer the question without  
13 knowing whether or not we are going to have to grant that  
14 request. Assume, for the purpose of the question, we are  
15 not going to grant the request.

16 MS. MURRAY: Assume that you won't grant it?

17 HEARING OFFICER STUBCHAER: Yes. It's a hypothetical  
18 for the purpose of answering the question.

19 MR. WERNETTE: The intent of the language was to  
20 encourage the development of this plan from the date of the  
21 issuance of our Biological Opinion until whenever the Board  
22 decided to close the hearing record, whether that was  
23 Thursday afternoon or a week later, to accommodate the  
24 things that Ms. Leidigh described.

25 It was intended to move forward quickly and negotiate

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01 and come to conclusion on a monitoring plan that was  
02 acceptable to all parties. So, if you specifically say is  
03 the intent to have a plan negotiated between now and  
04 Thursday, I guess now that we have delayed, now we are at  
05 today as opposed to June 16th, I would say, to be  
06 consistent with that language, we'd want to be able see that  
07 final plan and in terms of whether we are satisfied with it,  
08 the Board, and also the project proponents satisfied with  
09 it.

10 MR. NELSON: Thank you.

11 To speed things up, as I stated before -- I was  
12 reminded I hadn't had a question answered. I would like to  
13 just real quickly go through the rest of my table, DW-35,  
14 which Page 3 starts -- which is where the additional  
15 conservation measures start. And instead of going through  
16 these piece by piece, what I wanted to ask Mr. Wernette, as  
17 we have walked through these fairly quickly, isn't it true  
18 that temperature criteria of 2.1 is a modification to what  
19 is included in the Final Operations Criteria for Delta  
20 Wetlands?

21 MR. WERNETTE: That's correct.

22 MS. MURRAY: The Department would just like to, at this  
23 point, object to temperature criteria on Page 3 of Delta  
24 Wetlands 35 is not an accurate summary. We do have an  
25 accurate summary that we have made copies of during the

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01 break, and we have overhead projection of that we would  
02 prefer to use in discussing temperature criteria.

03 MR. NELSON: I am not going to discuss temperatures any  
04 longer. When I bring temperatures up again, I would be  
05 happy to use the Department's summary.

06 HEARING OFFICER STUBCHAER: Then there is no need to  
07 look at it right now. Maybe it will come up on redirect.

08 MR. WERNETTE: Joe, you just wanted to know whether  
09 ours was different than what was in the Final Operations

10 Criteria?  
11 MR. NELSON: Yes.  
12 MR. WERNETTE: The answer to that question is yes.  
13 MR. NELSON: Go to Page 4. The dissolved oxygen  
14 criteria also is different than the Final Operations  
15 Criteria; is that correct?  
16 MR. WERNETTE: In the -- I believe the July and August  
17 criteria are similar if not exactly the same as what is in  
18 the final operating criteria, but the September through June  
19 is different.  
20 MR. NELSON: Would the difference in the July and  
21 August be that no depression of channel DO below 6.0?  
22 MR. WERNETTE: That's correct; so, you are correct,  
23 Joe. These both represent changes from the Final Operations  
24 Criteria.  
25 MR. NELSON: Recognizing that, just for the record, pH  
0071  
01 levels and turbidity were not addressed in the Delta  
02 Wetlands operation criteria, specially.  
03 Moving to --  
04 HEARING OFFICER STUBCHAER: Was that a question?  
05 MR. NELSON: No. I just stated so the Board understands  
06 that because those were not identified in the operations  
07 criteria, nor was number three or number four.  
08 MS. MURRAY: Is this testimony?  
09 MR. NELSON: I'm just going through some - so we can  
10 get through this as quickly as possible.  
11 MS. MURRAY: Sounds like testimony.  
12 HEARING OFFICER STUBCHAER: It does; it is testimony.  
13 MR. NELSON: Number 5.1, Mr. Wernette, is the no  
14 diversions prohibitions in June and July a modification of  
15 the Final Operations Criteria?  
16 MR. WERNETTE: There is one point where it overlaps  
17 with the operating criteria when the fall midwinter trawl  
18 index is below 239, there is a no diversion in June  
19 restriction. However, in essence, though, this is  
20 different.  
21 MR. NELSON: Turning to Page 5 of DW-35. Are those  
22 measures modification of the Final Operations Criteria?  
23 MR. WERNETTE: They are to the extent -- the numbers  
24 are very similar, but the intent of our recommendation is  
25 that rather than a limited request of or selection of 15  
0072  
01 days out of, for instance, 120 days, these criteria would  
02 apply throughout the month.  
03 MR. NELSON: Can you identify how much difference those  
04 percentages are with respect to the San Joaquin River  
05 inflows?  
06 MR. WERNETTE: Can I take a couple of minutes to get  
07 that table out?  
08 MR. NELSON: Yes.  
09 MR. WERNETTE: You want me to walk through each month?  
10 MR. NELSON: Yes, please.  
11 MR. WERNETTE: In the month of November, still trying  
12 to find the page in the Final Operations Criteria that  
13 actually address that so I can make that comparison.  
14 In the month of November, the 25 percent Delta outflow

15 is the same as what's in the Final Operations Criteria.  
16 There is no limit related to San Joaquin River in the month  
17 of November; whereas, we have 150 percent of San Joaquin  
18 River flow.

19 In the month of December it's consistent with what is  
20 in final operating criteria, with the exception that we  
21 would invoke it during the entire month rather than a  
22 potential 15-day period.

23 January criteria in the Final Operations Criteria  
24 outflow limits is the same. However, we have a limit on San  
25 Joaquin River that becomes more restrictive at 75 percent of  
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01 San Joaquin inflow, and the final operating criteria allows  
02 for 125 percent.

03 And then in the months of February, we have two  
04 changes. One of them is that instead of the 15 percent  
05 Delta outflow limit, in the Final Operations Criteria we  
06 select ten percent. In the San Joaquin River inflow the  
07 Final Operations Criteria allowed for 125 percent; the same  
08 as in the other three months that I have described. And we  
09 would restrict it to the 25 percent of San Joaquin inflow.

10 MR. NELSON: Will you consider a reduction from 125  
11 percent of inflow to 20 percent of inflow a minor  
12 difference?

13 MS. MURRAY: Are you referring to the move of February?

14 MR. NELSON: Excuse me, in the month of February.

15 MR. WERNETTE: It is not a minor difference.

16 MR. NELSON: Just to clarify again, you would apply  
17 these measures for 120 days rather than the 15- and 30-day  
18 adaptive tool that was in the Fish and Wildlife opinion?

19 MR. WERNETTE: That's correct.

20 MR. NELSON: The 6.2, which is a little bit of a  
21 cryptic additional conservation measure because it does not  
22 reference, just references the Final Operations Criteria and  
23 then modifies it; is that correct, with respect to the  
24 modification for counting of discharges?

25 MR. WERNETTE: Can you repeat that question, Joe?

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01 MR. NELSON: Page 77 of your Biological Opinion, 6.1,  
02 it does not change the percentage of discharges that are  
03 required to go to outflow and not been exported?

04 MR. WERNETTE: No. It essentially refers to the Final  
05 Operations Criteria, accepts those percentages.

06 MR. NELSON: Except for the fact that it eliminates the  
07 habitat island credit?

08 MR. WERNETTE: That's correct.

09 MR. NELSON: So, except the habitat island release  
10 flows that are occurring, Delta Wetlands is not -- the  
11 benefit that is occurring from those is not being counted;  
12 is that correct?

13 MR. WERNETTE: Could you repeat that, please?

14 MR. NELSON: The benefit occurring from the irrigation  
15 return flows and releases from the habitat islands would  
16 not, then, be counted with respect to the benefits provided  
17 by the Delta Wetlands Project?

18 MR. WERNETTE: I would slightly change that. I  
19 wouldn't describe the releases from the habitat as benefits;

20 I would just describe them as discharges from the habitat  
21 islands. It is correct that those discharges would not be  
22 applied under our recommendation, would not be applied to  
23 reduce the amount that is dedicated to the environment under  
24 this measure.

25 MR. NELSON: To the extent those releases provide  
0075 additional outflow, they are not then counted and not -- the  
01 benefits of that additional, those additional releases is  
02 not provided to or given to Delta Wetlands; is that correct?  
03

04 MS. MURRAY: I think that has been asked and answered.  
05 He just answered that question saying that they were  
06 discharges, not benefits. I think we need to move on.

07 HEARING OFFICER STUBCHAER: Go ahead, Mr. Nelson.

08 MR. NELSON: Mr. Wernette did not respond to the  
09 question of whether he is recognizing a benefit from those  
10 habitat island releases.

11 HEARING OFFICER STUBCHAER: That is slightly  
12 different. Go ahead and answer.

13 MR. WERNETTE: When we took a look at how those habitat  
14 island releases would be made, the scheduling of them and  
15 the volume of those discharges, the location of the islands,  
16 we couldn't really attribute any benefit to those releases,  
17 at least in terms of changes in local hydraulics that could  
18 be beneficial to aquatic resources.

19 We were skeptical of the final outcome or final fate of  
20 those habitat island releases in terms of whether they  
21 really contribute to Delta outflow. So, from that point of  
22 view, there has been tremendous amount of testimony here at  
23 the hearing so far, whether foregone agricultural will  
24 result in Delta outflow or people will just modify  
25 operations of the state and federal water projects. So, we

0076 didn't attribute the Delta outflow aspect of it to having  
01 any benefits to that, and we felt discharges from four  
02 different location on these habitat islands at rates that  
03 might be 5 or 10 cfs or 20 cfs would really be so widespread  
04 and so diluted that there really wouldn't be any benefits to  
05 be had to be used to balance or to be used to credit the  
06 benefits intended by this measure in the first place.

08 MR. NELSON: Now, moving to Page 6, I don't have  
09 anymore questions on that item.

10 I had a couple questions for Ms. McKee and Mr.  
11 Sweetnam.

12 Ms. McKee in your testimony you recommend that  
13 screening of additional unscreened diversions in Georgiana  
14 Slough and Mokelumne Channels or other unidentified  
15 diversions be required by the Board for Delta Wetlands.

16 Is that correct?

17 MS. McKEE: That's correct.

18 MR. NELSON: In your testimony you state that as an "I  
19 recommend." Is this a Department recommendation or your  
20 recommendation?

21 MS. McKEE: It is not a Department recommendation; it  
22 is my recommendation.

23 MR. NELSON: Thank you.

24 Mr. Sweetnam, recognizing those four items are the

25 items that you recommended in your testimony, are those also  
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01 just your recommendation and not the Department's  
02 recommendation?

03 MR. SWEETNAM: Actually, those are Final Operations  
04 Criteria number 1920, 23, and 24. And all I said was that  
05 these should be in effect in all years to protect Delta  
06 smelt. They are currently in the Final Operations Criteria  
07 only in effect when the index is less than 239.

08 MR. NELSON: Was your recommendation to the Board, as  
09 to the application of those in all years, your  
10 recommendation or the Department's recommendation?

11 MR. SWEETNAM: As I said, it was my recommendation.

12 MR. NELSON: That completes going through this chart.

13 MS. MURRAY: The Department does object to the chart in  
14 regards to 2.1 temperature criteria as being not an accurate  
15 summary. So I would like that part struck from the chart.

16 HEARING OFFICER STUBCHAER: 2.1 on Page 3.

17 MR. NELSON: Mr. Stubchaer, I don't want to waste the  
18 time here of correcting it. If there is an error, it was an  
19 inadvertent error in summarizing the table. At one point,  
20 this was a ten-page table. We were cutting it down to try  
21 to summarize it. So, if there is an error that requires  
22 modification, I am happy to do that before we submit it to  
23 the Board for the record.

24 What is the error?

25 MS. MURRAY: We can take the time now or we can take it  
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01 later. If you agree to modify it --

02 HEARING OFFICER STUBCHAER: If you are going to modify  
03 it, why don't you do it during the lunch break?

04 MR. NELSON: I will discuss it with Ms. Murray. If  
05 there is an error, it will be modified.

06 MS. MURRAY: I am informed by staff that there are  
07 other errors, and, if Delta Wetlands would agree to meet  
08 with us and correct all the errors --

09 MR. NELSON: I will correct actual errors. This was a  
10 summary document. As I said before, it was a ten-page  
11 document when I had every single one of the measures. So,  
12 what it was was a talking point to go through in the  
13 discussions with the witnesses here, and the Board asked  
14 that we introduce it as an exhibit.

15 To the effect there are measures, identification of  
16 measures here that I have not correctly identified, I will  
17 be happy to modify it. But to the extent that you are  
18 asking me introduce and recreate my 11-page table that I had  
19 before, I mean --

20 HEARING OFFICER STUBCHAER: How many alleged errors are  
21 there, Ms. Murray?

22 MS. MURRAY: I have not had time to go through it in  
23 detail because I just got it today.

24 HEARING OFFICER STUBCHAER: I understand it is a  
25 summary. And during the question on one of the details

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01 earlier, the thought had occurred to me, looking at the  
02 original document, that the original document was pretty  
03 clear. If there is a different interpretation of them, we

04 will have to decide what the correct interpretation is, as  
05 far as the hearing record.

06 I think it is useful to see the various opinions, side  
07 by side, recognizing they're just summaries. I think we can  
08 stipulate that it is the original documents, the wording in  
09 the original document that governs; and if we have questions  
10 pertaining to that, we will return to the original documents  
11 and not the summary table.

12 Is that satisfactory?

13 MS. MURRAY: Yes.

14 MR. NELSON: Thank you.

15 Mr. Wernette, could you describe the process by which,  
16 in the joint consultation, the methodologies that were to be  
17 used in analyzing impacts on listed species occurred?

18 MR. WERNETTE: Are you referring to the -- for  
19 instance, where we developed the Aquatic Habitat Resources  
20 Management Plan and how we came to developing that document?

21 MR. NELSON: I am referring to the development of the  
22 modeling that Jones & Stokes developed for use in the  
23 biological assessment and also utilized in the December 20th  
24 and March 25th memorandums. Are you familiar with the  
25 process by which those methodologies were developed and

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01 approved by the agencies?

02 MR. WERNETTE: We are familiar with the analytical  
03 tools that were developed by Jones & Stokes for the Board,  
04 and used those tools and results of model analysis that were  
05 performed by Jones & Stokes to guide our efforts at  
06 developing habitat management, aquatic habitat management  
07 plan for the project and to evaluate different alternatives  
08 that we recommended, different actions. So, there were  
09 quite a few iterations throughout the process. Using those  
10 tools as some of the tools we used to assess the project  
11 impacts. In some cases, some of the evaluations were  
12 qualitative, and their quantitative data were simulations  
13 provided by Jones & Stokes, helped us in those qualitative  
14 examinations.

15 So a combination of all of that is what we used in the  
16 development of proposals and recommendations, and ultimately  
17 resulted in the conclusions that we reached in our own  
18 Biological Opinion.

19 MR. NELSON: Was there a sign-off or approval process  
20 for the methodologies that Jones & Stokes used?

21 MR. WERNETTE: There was an effort on terms of coming  
22 -- there was substantial discussion about the different  
23 tools that were recommended by Jones & Stokes or proposed  
24 and used during the biological assessment. There was a  
25 desire, as I recall, on the part of lead agencies, both the

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01 Corps and the Board, to get to the point where the fish and  
02 wildlife agencies would get past the first step, which is a  
03 fact finding step, where people are recommending analytical  
04 tools, were looking how well they performed, deciding  
05 whether they're going to be useful or not, modeling them,  
06 making recommendations for modification.

07 Comes to a point where the federal agencies have to  
08 say, "Do you have enough information?" "Do you have what

09 you need in order to come to an opinion? Because if you  
10 don't, then the process can be delayed." So, from the  
11 context of the fish and wildlife agencies saying, "Yes, we  
12 think we have the data we need to proceed with forming our  
13 own opinion," I recall that and I recall us saying, yes, we  
14 have tools we needed to move forward.

15 MR. NELSON: Were some of the tools that you needed  
16 and that you had, the salmon mortality model, the estuary  
17 habitat model, and the Delta smelt model that Jones & Stokes  
18 developed?

19 MR. WERNETTE: Those were some of the tools that were  
20 available to us.

21 MR. NELSON: They were approved and those were  
22 sufficient for your analysis?

23 MR. WERNETTE: I think that is a mischaracterization of  
24 what we said. We didn't approve those models, but agreed  
25 that those models, the data from them, as well as the actual  
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01 data output from the DeltaMOVE Model itself, collectively  
02 provided us with the tools we needed to move forward with  
03 the consultation.

04 We recognized it is a very difficult process to get  
05 approval of models like the salmon mortality model because  
06 of the issues of transferring information from fall-run to  
07 winter-run, for instance. So, from our own Department's  
08 perspective, we didn't feel -- we felt, for instance, in our  
09 comment letter on the Draft EIR, that we outlined the  
10 concerns we had about directly applying that mortality  
11 model. Nevertheless, felt that it could still provide  
12 useful information in how we assess alternatives and how we  
13 assessed whether we were being effective using that measure,  
14 whether we were being effective at minimizing or reducing  
15 impacts with different conservation measures or different  
16 modifications to operation.

17 MR. NELSON: You seem to be making a distinction  
18 between data that the models produce and the actual modeling  
19 results. Are you making that distinction?

20 MR. WERNETTE: Maybe you can clarify that, Joe. I am  
21 not sure if I understood your question.

22 MR. NELSON: When you're answering my question, you  
23 said, well, we recognized that data from the model is  
24 useful. And were you talking the data output, say, from the  
25 DeltaMOVE Model or were you talking the modeling results  
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01 from the model such as the salmon mortality model and the  
02 Delta smelt index?

03 MR. WERNETTE: When I am saying data, I am talking both  
04 the direct output of those mortality models and the output  
05 of the DeltaMOVE Model itself. We found both of those  
06 sources of data useful in evaluating the project.

07 MR. NELSON: Patty, could you put up Table 5 from  
08 DW-5?

09 Is it your understanding that Jones & Stokes agreed  
10 with Fish and Game's position on the use of the DeltaMOVE  
11 raw data?

12 MR. WERNETTE: I think that the scientists at Jones &  
13 Stokes, specifically Mr. Warren Shaul, and also Dr. Russ

14 Brown, believed that there is a danger or risk in applying  
15 the raw data from the DeltaMOVE Model and drawing  
16 conclusions about that data in terms of directly referencing  
17 or directly translating into salmon dying or smelt dying or  
18 mortality.

19 From that point of view, if we tried to use these data  
20 as direct measures of mortality, I think they would not  
21 agree with that.

22 HEARING OFFICER STUBCHAER: I would like to ask a  
23 clarifying question. The data you are referring to is  
24 output from a model?

25 MR. WERNETTE: Yes.

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01 HEARING OFFICER STUBCHAER: Just from my background,  
02 data is input to a model and output from a model is not  
03 data. That is, it is a matter of nomenclature. It is a  
04 little confusing to me. Data is something you usually  
05 measure. These are calculated outputs.

06 MR. NELSON: You might be able to see clarifying -- Mr.  
07 Brown who worked on these models could possibly add  
08 something. I believe that the DeltaMOVE model, which this  
09 table shows was a model that provided output that was then  
10 used as data for the salmon mortality model and for the  
11 Delta smelt index. So that is why there is that dual use of  
12 both data there.

13 HEARING OFFICER STUBCHAER: Thank you. That helps.

14 MR. NELSON: Mr. Wernette, when you were discussing  
15 Jones & Stokes' position as to the use of its data, you  
16 mentioned the fact that Mr. Shaul did not agree with the use  
17 of raw data. Looking at the footnote that is at the bottom,  
18 it says, the footnote, this footnote from the Exhibit DW-5,  
19 Table 5, states: the presentation of this information was  
20 not considered appropriate for comparison of different  
21 alternatives as only provided at the request of DF&G. The  
22 winter-run diversion index is not supported by existing  
23 data.

24 Are you familiar with that statement by Mr. Shaul?

25 MS. WERNETTE: Yes, I am.

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01 MS. MURRAY: Excuse me, are you saying by implication  
02 of your question that Mr. Shaul is a --

03 MR. NELSON: I am just going to ask that question.

04 Do you understand that Mr. Shaul communicated that  
05 statement to you?

06 MR. WERNETTE: My recollection is that this memorandum,  
07 of which this table is included, was drafted by Mr. Shaul.  
08 So, I would assume he wrote this. Whether somebody else  
09 provided this language and he incorporated into the table at  
10 the direction of some State Board staff, that could be. He  
11 could have actually been provided with this specific  
12 disclaimer by Board staff. However, it was definitely  
13 included within a table of a memorandum written by Mr.  
14 Shaul.

15 MR. NELSON: Is it your understanding that that is his  
16 opinion as use of his data?

17 MR. WERNETTE: That is correct. I think if I could go  
18 back and make sure that we are clear that it is my

19 understanding that Mr. Shaul's concern wasn't our ability to  
20 use these data for making comparisons, as long as we  
21 understood the limitations of the data and that they did not  
22 necessarily reflect a direct measure of mortality for  
23 winter-run.

24 So, that is my understanding of his concern and  
25 follow-up discussions I had with him that was his primary  
0086 concerns. It didn't relate to everything in the table. It  
01 related more directly to concerns with respect to winter-run  
02 and the characterization of it being a winter-run  
03 entrainment index. That was his primary area of concern.

04 MR. NELSON: Is it true that Mr. Shaul's disagreement  
05 with the use was not only with respect to the fact that this  
06 data does not show direct entrainment or direct mortality,  
07 but also to the fact that this data was -- the DeltaMOVE was  
08 to be used for input data for a second model which was the  
09 salmon mortality model?  
10

11 MS. MURRAY: I object to that question. It calls for  
12 him to -- he's asking for what Mr. Shaul's intent or  
13 concern, and I am not sure that we know what's inside Mr.  
14 Shaul's head.

15 MR. NELSON: Mr. Wernette had long conversations with  
16 Mr. Shaul about use of this data. I think he has a very  
17 good understanding of what Mr. Shaul believed about this  
18 data. And I am only asking for his understanding of what  
19 Mr. Shaul told him.

20 MS. MURRAY: I just ask you to put Mr. Shaul up here  
21 and ask him yourself.

22 HEARING OFFICER STUBCHAER: I think to his  
23 understanding of what Mr. Shaul told him, he can answer that  
24 question.

25 MS. MURRAY: Could you repeat the question?  
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01 And again, Frank, it is only your understanding of what  
02 Warren Shaul was thinking at the moment you were talking to  
03 him.

04 MR. WERNETTE: Could you repeat that question?  
05 (Discussion held off record.)

06 MR. NELSON: Mr. Wernette, is it your understanding  
07 that the data that is identified here on Table 5 is output  
08 from the DeltaMOVE Model which was intended to be used for  
09 the salmon mortality index and for the Delta smelt index?

10 MR. WERNETTE: The cross Delta flow parameter output,  
11 which is what is principally shown on this view right now of  
12 this table, is used by Warren, or Mr. Shaul, as an element  
13 within the salmon mortality model. I can't tell you whether  
14 he intended it only to be used for that purpose. Because  
15 the discussion of habitat quality and changes in internal  
16 Delta hydrodynamics, which are major factor in our  
17 evaluation of the Delta Wetlands Project, not just trying to  
18 calculate salmon mortality by using model output to put into  
19 another model. But we depended heavily on the qualitative  
20 estimates, and these are some, at least some, input that we  
21 can use to help and guide our qualitative estimate,  
22 evaluation of the project.

23 So, I can't tell you whether he intended to only be

24 used for that purpose, but I can tell you during the  
25 development of variations of the Aquatic Resources

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01 Management Plan, that we used the data from the standpoint  
02 of mortality model, and we used the direct output from the  
03 DeltaMOVE Model to evaluate how effective our alternatives  
04 were in improving or offsetting some of the more adverse  
05 hydrodynamics effects of the project.

06 MS. McKEE: I think Mr. Shaul specifically testified on  
07 this, and he was under both testimony and cross, actually,  
08 that the purpose of these models was, and he made the point  
09 that the mortality indices were not to be construed as a  
10 mortality rate; the entire purpose of the model was to  
11 indicate degradation or changes in habitat quality.

12 MR. NELSON: Actually, if I could follow up with that  
13 statement. Isn't it true that what you are referring to is  
14 the salmon mortality model and Delta smelt index, not the  
15 cross Delta flow parameter and the DeltaMOVE, which was  
16 data to be used for those two indexing models?

17 MS. McKEE: I don't recall if he was speaking only on  
18 the mortality index. He certainly did speak on it, but he  
19 was speaking in general about the approach of his analysis,  
20 that the purpose was to evaluate habitat quality through the  
21 modeling.

22 MR. NELSON: It is your understanding that the Salmon  
23 mortality model and the Delta -- that question would go to  
24 Mr. Sweetnam. The salmon mortality model had other inputs  
25 and other considerations outside of the raw data from the

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01 DeltaMOVE; is that correct? There are other factors that  
02 come into play in developing the salmon mortality model,  
03 other than just this data?

04 MS. McKEE: Yes. Salmon mortality model is basically  
05 defining a level of mortality due to a variety of factors,  
06 assuming that the input on the hydraulic effects of Delta  
07 Wetlands Project on the various channels, and then the  
08 mortality model takes that change in hydraulics and assigns  
09 mortality due to changes in hydraulics, the timing and  
10 occurrence of when the fish come into the Delta, temperature  
11 impacts. Quite a few.

12 MR. NELSON: With respect then to naming those factors  
13 you just did. So, there is no more to it than just simply  
14 using this data when you're trying to determine effects on  
15 salmon? We can't simply use this data. Mr. Shaul used more  
16 than this data to determine his effects; is that correct?

17 MS. McKEE: His mortality model is quite complex and  
18 has a variety of criteria that assigns a mortality rate to  
19 an individual fish as it progresses through the Delta.

20 But going back to what Mr. Shaul testified to and our  
21 understanding is that we were trying to evaluate changes in  
22 habitat quality, and the Department felt that it was very  
23 important to go back and look at the specific changes in  
24 habitat quality, such as directly looking at cross Delta  
25 flow parameters, changes in Q West, inflow, outflow, since

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01 that was what we are trying to develop mitigation for.

02 MR. NELSON: Did you use -- actually, stay with you,

03 Ms. McKee. Did you use the salmon mortality model when  
04 analyzing the Delta Wetlands Project for the Fish and Game  
05 Biological Opinions?

06 McKEE: We reviewed it, and we gave consideration to  
07 it, but we focused our efforts in terms of looking at  
08 impacts and development of mitigation on the actual habitat  
09 parameters themselves.

10 MR. NELSON: Didn't you use a different index?

11 MS. McKEE: There was an index performed, which was the  
12 winter-run entrainment and also sometimes it was referred to  
13 as the winter-run diversion index, which is what you have  
14 represented up on your overhead. But that was just one of  
15 many pieces of information that we perused, but we were  
16 focusing on impacts to habitat quality and trying to  
17 mitigate impacts on habitat. We were looking a lot at  
18 hydrology.

19 MR. NELSON: Can you identify anywhere in your  
20 Biological Opinion where you discussed the results of Mr.  
21 Shaul's salmon mortality model?

22 MR. WERNETTE: In our opinion, we don't reference  
23 directly the results of the salmon mortality model.

24 MR. NELSON: But you do reference another index which  
25 is this winter-run diversion index?

0091

01 MR. WERNETTE: Yes, we do.

02 MR. NELSON: The winter-run diversion index, is that  
03 what you are referring to up there, which is the raw data  
04 again from the DeltaMOVE data?

05 MR. WERNETTE: It required a little bit more than just  
06 taking the raw data from the DeltaMOVE Model. We used that  
07 information for those locations in the Delta that represent  
08 potential travel routes or entrainment routes for winter-run  
09 salmon. We had to take the output from the DeltaMOVE Model  
10 for several locations, combined that with the percentage of  
11 time or the percentage of the population that is occurring  
12 in any particular month. And, you know, combined those  
13 data.

14 So what those are, essentially at our request, Warren  
15 performed that calculation in response to comments we made  
16 early in the consultation and in our comment letter to the  
17 Draft EIR. He made that calculation for us so we could  
18 attribute the areas of concern that the Department had with  
19 respect to the winter-run.

20 MR. NELSON: Did you make any additional calculations  
21 after you received the data from Mr. Shaul?

22 MR. WERNETTE: The calculations we made were -- the  
23 answer is, yes, we did. We did make calculations. Those  
24 were primarily used to evaluate percent changes between with  
25 and without project and changes reflective of how maybe our

0092

01 Biological Opinions would have an effect on -- what percent  
02 change or reduction in impact would our reasonable and  
03 prudent measures result in. So, in that sense, we did  
04 perform those calculations so that we had some sense for  
05 whether we were really being effective in modifying the  
06 project to the point of making significant reductions in  
07 impacts.

08 MR. NELSON: With respect to changing any of the input  
09 data, did you change any of the data or did you just simply  
10 change the operational criteria that you were analyzing?

11 MS. McKEE: Mr. Shaul gave to the Board, and we  
12 received, a copy of the output, the model output. And we  
13 did not find this helpful at all, having a grand average.  
14 We needed to look at winter-run diversion data index by  
15 month. That is how Mr. Shaul provided it to us. So all we  
16 did was printout off the Lotus spreadsheet and add up,  
17 month-by-month, so that we could look at it on a monthly  
18 basis.

19 Then it was provided to us both in terms of model  
20 output for the biological assessment, effects of operations  
21 to the ESA and effects of operation to the Department of  
22 Fish and Game Biological Opinion so that we could do a  
23 cross-comparison of the benefits for the various measures.

24 MR. NELSON: Could you put up Figure 12?

25 I believe Figure 12 is a graph of what you did; is that  
0093

01 correct, for the winter-run entrainment index?

02 HEARING OFFICER STUBCHAER: From --

03 MR. NELSON: It is from the CESA Biological Opinion,  
04 Page 66, which is DFG 11.

05 Is that a true representation of what you did there,  
06 which is your graph of that?

07 MS. McKEE: For the Department, yes.

08 MR. NELSON: Who did that?

09 MR. WERNETTE: Staff at the Bay Delta Special Water  
10 Project Division in Stockton took the data that Ms. McKee  
11 was describing, provided to us by Mr. Shaul. In order to  
12 break out, she correctly mentioned those were yearly  
13 averages, and we have measures that are very specific on a  
14 month-by-month basis, rather than yearly. So, this is a  
15 plotting of those data.

16 MR. NELSON: Can anybody here explain to me that chart,  
17 explain how those graphs were developed out of the data  
18 output from Mr. Shaul?

19 MR. WERNETTE: I can take a stab at it.

20 MR. NELSON: Are you taking a stab with knowledge or  
21 are you talking a stab just to take a stab?

22 MR. WERNETTE: To the extent the supervisor knows what  
23 his staff is doing, I'll go from that point of view.

24 MR. NELSON: Mr. Stubchaer, I have a concern here. We  
25 spent the last month trying to figure out what these graphs  
0094

01 did or didn't do and how the data output from Mr. Shaul's  
02 model ended up in these graphs. We had a lot of problems  
03 trying to recreate these graphs. To the extent that Mr.  
04 Wernette is taking a stab at something, I am a little  
05 concerned we don't have a person who developed these graphs,  
06 who actually worked with data, on behalf of Fish and Game  
07 here, to be cross-examined.

08 MS. MURRAY: We have the supervisor for the staff that  
09 developed these graphs, and Mr. Wernette is familiar with  
10 the graphs, and he has said that he will, from his  
11 supervisory standpoint, testify as to what the graphs say.

12 HEARING OFFICER STUBCHAER: I heard that. Perhaps the

13 problem is the word "stab."

14 Do you feel qualified to explain how these graphs were  
15 developed?

16 MR. WERNETTE: I believe I am.

17 MR. NELSON: Can I ask a preparatory question? Can you  
18 identify the staff who did the graph from the data, did the  
19 work?

20 MR. WERNETTE: Mr. Jim Starr was the staff that I  
21 assigned.

22 MR. NELSON: Mr. Starr is sitting right here. Can we  
23 have Mr. Starr sworn and testify to it?

24 MS. MURRAY: Mr. Wernette has testified that he is  
25 qualified to answer these questions.

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01 HEARING OFFICER STUBCHAER: Why is Mr. Starr here?

02 MS. MURRAY: Mr. Starr is here to help us with the  
03 graphic. He was here for our direct, and we have a number  
04 of graphics we prepared in case they came up for  
05 cross-examination. He is here to help us with those.

06 HEARING OFFICER STUBCHAER: You object to him helping  
07 answer the question?

08 MR. NELSON: I would like Mr. Starr to --

09 HEARING OFFICER STUBCHAER: I know.

10 MS. MURRAY: Yes, I do object. We have identified our  
11 witnesses and this cross-examination has gone on for two and  
12 a half hours. I just feel, like, if we open up a whole  
13 other witness, we will be here another two and a half hours.

14 HEARING OFFICER STUBCHAER: The direct was almost two  
15 hours, not quite. It is a lengthy direct. And I think that  
16 the cross-examination is useful. I don't think there is a  
17 lot of repetition. We are allowing the time to go on. And  
18 it appears to me that if the person who actually did the  
19 exhibits is here and needs to supplement Mr. Wernette's  
20 answer, why can't he do that?

21 MS. MURRAY: If Mr. Wernette needs help, I will  
22 stipulate -- I will offer Jim to help Mr. Wernette.

23 HEARING OFFICER STUBCHAER: Let's let Mr. Wernette --

24 MS. MURRAY: If you stipulate to cut this down before  
25 lunch.

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01 MR. NELSON: Mr. Stubchaer, I would have a standing  
02 objection that the preparer of the graphs is here, the  
03 person who worked the data. He knows exactly what he did.  
04 It would be much more efficient for Mr. Starr to answer all  
05 these questions rather than having Mr. Wernette, who,  
06 although he is a supervisor, didn't actually do the  
07 development of these graphs. It would make my cross a lot  
08 easier and quicker if Mr. Starr answers the questions  
09 directly.

10 HEARING OFFICER STUBCHAER: Mr. Starr is available to  
11 back up Mr. Wernette. I think we will let Mr. Wernette, as  
12 a sworn witness, begin.

13 But, Mr. Starr, why don't we swear you in just in case  
14 you have to answer.

15 (Oath administered by Mr. Stubchaer.)

16 MR. NELSON: Mr. Wernette, can you please explain the  
17 graph that is the winter-run salmon entrainment index for

18 March that is in Figure 12?

19 MR. WERNETTE: Yes. This graph is -- what was done was  
20 the data output provided to us by Warren Shaul was for the  
21 70 years of Marches. We ranked those data for the project  
22 as is proposed under the Endangered Species Act or in the  
23 Final Operations Criteria, and what was predicted by these  
24 operations would be with our reasonable and prudent  
25 measures. So the 70 years of data were broken out by month,  
0097  
01 or the month of March was target because in our measures we  
02 specifically addressed the month of March with our closure  
03 recommended in March.

04 In this case we compared -- we ranked it by  
05 electronically selecting the top ten Marches in that time  
06 period and displayed those in bar graph form.

07 MR. NELSON: Mr. Wernette, could you tell me what data  
08 sets from the DeltaMOVE Model you used in this entrainment  
09 index?

10 MR. WERNETTE: Is the data what Warren Shaul provided  
11 in the spreadsheet which is a combination of four of the  
12 computer boxes that he has in the model, and the release of  
13 a hundred particles into those boxes and the tracking and,  
14 basically, the entrainment of those particles in the  
15 diversions in the Delta, and combining those data for this  
16 particular month.

17 MR. NELSON: What boxes?

18 MR. WERNETTE: In Appendix A, Figure 2 of the  
19 biological assessment for the Board --

20 MR. NELSON: Is that an overhead?

21 MR. WERNETTE: It is.

22 MR. NELSON: Could you please put it up so the Board  
23 can see what you are talking about?

24 For the record this is Appendix A, Figure 2 from the  
25 biological assessment that is included in the Draft

0098  
01 EIR/EIS.

02 MR. WERNETTE: So the DeltaMOVE Model can present  
03 information for different locations of the Delta, and this  
04 is a graphic of the model structure. So, it is very  
05 graphical. It doesn't really depict the shapes of these  
06 areas. But the location of the Mokelumne river box, the  
07 Central Delta, there is a Lower Sacramento River box, and a  
08 Western Delta box or Western San Joaquin box that are for  
09 Lower San Joaquin, excuse me, that are combined because they  
10 represent potential routes of entrainment of winter-run  
11 salmon into the Delta through Three Mile Slough, the Lower  
12 San Joaquin, and, of course, Georgiana Slough and the Delta  
13 Cross Channel.

14 So, in a sense, these boxes represent in the model  
15 itself, represent discreet units that can be -- data can be  
16 calculated from, or output can be calculated from. These  
17 are the information that we combined for any given month,  
18 whether it was February or March, and displayed in our  
19 Biological Opinion.

20 MR. NELSON: Of those boxes could you please identify  
21 -- what is going to -- I am not sure which four boxes you  
22 used and which ones you didn't.

23 MR. WERNETTE: Give me a couple of minutes, Joe?  
24 MR. NELSON: Sure.  
25 (Reporter changes paper.)  
0099  
01 HEARING OFFICER STUBCHAER: Proceed.  
02 MR. WERNETTE: Are you looking for the four data boxes  
03 that were used, Joe?  
04 MR. NELSON: Yes, the four data boxes.  
05 MR. WERNETTE: The Mokelumne River box, the Lower  
06 Sacramento River. There is a Central Delta box, and the  
07 Lower San Joaquin River. So those four in combination are  
08 used to calculate our index.  
09 MR. NELSON: Did you numerically combine these four  
10 boxes?  
11 MR. WERNETTE: Yes, we did. I can give you a little  
12 bit of rationale behind why we did that.  
13 MR. NELSON: I want to interrupt. When you're  
14 referring to "why we did that," what is it that you ever  
15 referring to?  
16 MR. WERNETTE: The use of these four boxes in our  
17 calculation and the rationale for why we did that or why we  
18 requested it to be presented if that way.  
19 MR. NELSON: Please do.  
20 MR. WERNETTE: There has been a tremendous amount of  
21 testimony on direct, at least in our written testimony,  
22 about how the Delta is used by winter-run salmon. It's not  
23 just a conduit for salmon moving from spawning areas and  
24 rearing areas upstream of the Delta and to shoot through in  
25 a most rapid time possible through the Delta like a pipe.  
0100  
01 The Delta actually serves a useful function for  
02 rearing habitat for winter-run. So where you might think  
03 that information that would be gained strictly looking at  
04 how salmon might be entrained into the Delta from the  
05 Sacramento River through Georgiana Slough or the Delta Cross  
06 Channel, the Delta is used as an important rearing habitat  
07 for winter-run. So, we combined areas of the Delta where  
08 these salmon are going to be rearing as well as salmon that  
09 are going to be moving through the system. The boxes we  
10 used and our rationale for combining them to reflect that  
11 overall risk that any particular project that is located in  
12 the Central Delta may have on winter-run salmon, we believe  
13 that was the best analytical approach and had the best  
14 biological basis for doing that analysis.  
15 MR. NELSON: When you refer to combined, you mean that  
16 you added these four boxes numerically; you did not keep  
17 them separate in your analysis?  
18 MR. WERNETTE: When we talk about keeping them  
19 separate, I think that we have some presentations of data  
20 where we actually display the data separately for the  
21 different boxes. But when -- I believe when Warren  
22 calculated this index, he combined them.  
23 MR. NELSON: Can Mr. Starr, since he actually had the  
24 data, confirm whether these data boxes were combined or  
25 whether he combined them numerically after he received  
0101  
01 them?

02 MR. STARR: Could you repeat the question, please?

03 MR. NELSON: The data output that you were provided by  
04 Warren Shaul, were the boxes, the Lower Sacramento River,  
05 the Lower San Joaquin River, the Mokelumne River, and the  
06 Central Delta boxes, the data from those boxes, combined  
07 numerically when you received the data, or did you do that  
08 afterwards?

09 MR. STARR: The information we used to process this was  
10 the M Salmon Model that Warren Shaul developed. And what it  
11 uses is, it uses several factors, percent entrainment, which  
12 is a percent entrainment based upon, I believe, what he  
13 calls the cross Delta flow parameter. It also looks at the  
14 percentage of not Delta smelt, but salmon present in the  
15 Delta at different times, and employs that.

16 What happens is we run the M Salmon Model. It is a  
17 Lotus spreadsheet model, macro, runs through that. We run  
18 it a step-by-step process so that we can stop it before it  
19 takes that data and adds it up or that output and adds it up  
20 into a yearly average, for, like, 70 years. We take that  
21 data, and I stop it at that point. I grab the output  
22 columns where it places that data before it adds it. I  
23 pulled it off to a separate spreadsheet, and, you know, it  
24 is the four boxes that you have there, that we listed, and  
25 we added them together, added the four boxes together, and  
0102

01 came up with index. And I use that word "index" to  
02 designate that we did not consider this mortality. It was  
03 an index of impact, potential impact.

04 Once we did that for each condition, we did it for the  
05 base. We did it for the ESA conditions. We did it for the  
06 CESA conditions. We also did it for the biological  
07 assessment. Then we went back and compared everything,  
08 subtracted the base off and came up with a base number.

09 MR. NELSON: I have one further -- I have a couple  
10 questions as you were going through. I want to make sure I  
11 understood it. So, can you once again go through the fact  
12 that you took the output from Mr. Shaul. You ran it, and  
13 you stopped it.

14 When you were stopping it, there were four boxes of  
15 data; is that correct?

16 MR. STARR: Correct.

17 MR. NELSON: And you took each box out and you put it  
18 into a separate Lotus spreadsheet; is that correct?

19 MR. STARR: Yes.

20 MR. NELSON: What did you do after that?

21 MR. STARR: We added them together.

22 MR. NELSON: So you had one value?

23 MR. STARR: Correct.

24 MR. NELSON: Is it your understanding that Mr. Shaul's  
25 salmon mortality model at the end of his model run, does he  
0103

01 combine those four boxes?

02 MR. STARR: Yes, he does.

03 MR. NELSON: Numerically?

04 MR. STARR: Yes.

05 MR. NELSON: You were following Mr. Shaul's model?

06 MR. STARR: Yes. He combines them and then he takes a

07 yearly average. We didn't go with the yearly average. We  
08 kept it as individual months for the entire 70 year period.  
09 We had 840 data points per box, per column box.

10 MR. NELSON: Isn't it true that Mr. Shaul doesn't use  
11 -- he doesn't combine those four boxes because he doesn't  
12 use them in the salmon mortality model? Does he only use  
13 the Cross Delta flow parameters?

14 MR. STARR: I am mistaken then. I am thinking about  
15 the M Larvae Model. If the salmon mortality is different  
16 than that, I'm unaware of that.

17 MR. NELSON: Now you confuse me. What is the M Larvae  
18 Model?

19 MS. McKEE: We're talking two different models. The M  
20 Salmon model is the model which calculates the movement of  
21 particles, i.e. salmon; and the mortality model assumes that  
22 the only salmon that are vulnerable are ones originating in  
23 the Mokelumne River box, that only salmon come to the Delta  
24 Cross Channel and Georgiana Slough. So, it takes the output  
25 from the M Salmon Model from the Mokelumne River box and

0104  
01 that is the relative vulnerable salmon moving along as  
02 particles being entrained in mortality factors.

03 For purposes of the entrainment modeling we wanted to  
04 see what particles of water or what particles of salmon that  
05 came down the Sacramento, as well as down through the  
06 Mokelumne and the Central Delta. You're talking two  
07 different models.

08 MR. NELSON: Now, the model you're referring to as  
09 being larvae model, are you talking the diversion index of  
10 the different models than Mr. Shaul's mortality model?  
11 Which one?

12 MS. McKEE: The mortality model uses the output Cross  
13 Delta flow parameter, which is only one box in the M Salmon  
14 Model. The entrainment index that Mr. Shaul performed for  
15 us looks at movement of these particles from all four  
16 boxes. That information comes from M Salmon or M Larvae.  
17 It is just simply a particle transport model. We wanted to  
18 look at four boxes rather than just the Mokelumne box.

19 Does that make sense?

20 That could have been -- we didn't put it in -- we  
21 didn't take that output and have -- put it into the  
22 mortality index model. We just wanted to look at the raw or  
23 look at the summary of particles transport and that is the  
24 entrainment index. No mortality factor associated with it.

25 MR. NELSON: It is only an index of change in the  
0105  
01 hydrology?

02 MS. McKEE: Right.

03 MR. NELSON: I just want to make sure the record is  
04 very clear as to which data we are talking to. The  
05 DeltaMOVE, which is what Mr. Shaul refers to as -- which is  
06 what creates the Cross Delta flow parameter, is that what  
07 you are referring when you say M Salmon?

08 MR. STARR: No. Can I use the table that you had?  
09 This one.

10 I believe your original question was: How did we -- I  
11 believe your original question was: How we came about to

12 derive this data? That is what I explained. That data was  
13 explained -- was derived using the M Larvae Model and  
14 information input from the DeltaMOVE Model. And that is  
15 model development.

16 MR. NELSON: Who created the M -- I never heard the  
17 nomenclature M Larvae Model.

18 MR. STARR: M Larvae is dealing with Delta smelt and  
19 longfin smelt and striped bass, and that was also created by  
20 Jones & Stokes Associates.

21 MR. NELSON: You are referring to the Delta smelt  
22 entrainment index, that is the other name that is used when  
23 you refer to the M Larvae?

24 MR. STARR: That is one model, yes. That is the M  
25 Larvae. But the M Salmon is what we used to calculate the  
0106 top data.

01 top data.  
02 MR. NELSON: When you were just saying, when you took  
03 Mr. Shaul's data, did you take it from -- you took the M  
04 Salmon data, lifted the data from DeltaMOVE, which is M  
05 Salmon, correct?

06 MR. STARR: No.

07 MR. NELSON: M Salmon is mortality model, sorry.

08 MR. STARR: No, no. M Salmon is not mortality model.

09 MR. NELSON: Getting confused here. Can you walk  
10 through, tell me DeltaMOVE, salmon mortality model, M  
11 salmon, and your diversion -- entrainment index, which one  
12 is which here?

13 MR. STARR: To create this entrainment index you see  
14 here for the top box, we used the M Salmon, just the M  
15 Salmon, which gets input from DeltaMOVE Model. We did  
16 nothing to affect that model or that input that came into  
17 that. It goes out and looks for a certain file, brings it  
18 in, and then calculates the salmon loss.

19 MR. NELSON: After that, what else? So M Salmon just  
20 uses your DeltaMOVE data and that is it?

21 MR. STARR: Well, it uses -- I can't say that is all it  
22 uses. It uses -- I am not -- when I say I am not fully  
23 versed on what it uses, it is a complex spreadsheet, and it  
24 uses hydraulic data that was calculated based upon the  
25 DeltaMOVE Model, uses a percent entrainment that is

0107 calculated based upon the DeltaMOVE Model, and it has a  
01 series of calculations and processes that it goes through.  
02 And it also uses the percent distribution of salmon,  
03 different races and runs, different runs of salmon in the  
04 Delta during the different months of the year.

05 Delta during the different months of the year.  
06 MR. NELSON: The percent distribution that you referred  
07 to, did you use the same percent distribution that Mr. Shaul  
08 used in his model?

09 MR. STARR: Yes.

10 MR. NELSON: M Salmon is different than Mr. Shaul's  
11 salmon mortality model?

12 MR. STARR: Yes.

13 MR. NELSON: M Salmon is the salmon entrainment index?

14 MR. STARR: That is what we used to calculate that,  
15 yes.

16 MR. NELSON: Go ahead.

17 MR. STARR: I just wanted to state that early on there  
18 was some question as to how we derived this number. And I  
19 discussed this with Warren Shaul. I stepped through the  
20 process that we did. I also went up and met with Ms.  
21 Stephanie Tise [phon] of Jones & Stokes to get a full  
22 understanding of this model, to understand how we can go  
23 through and derive the information of the M Salmon and M  
24 Larvae Model that we are using, so that we didn't use it  
25 incorrectly and didn't do anything inappropriate.

0108

01 MR. NELSON: After you were done putting together your  
02 graphs, did you go back and check your output with Jones &  
03 Stokes?

04 MR. STARR: No.

05 MR. NELSON: You never went to Jones & Stokes and  
06 showed them these graphs and said, "Did we use your data  
07 correctly or have we made a mistake?"

08 MR. STARR: No. My assumption was that if I followed  
09 the procedures that I outlined for Warren Shaul, then my  
10 data would be correct.

11 MR. NELSON: Did Warren Shaul or did anybody provide  
12 you with written instructions on how to use that data?

13 MR. STARR: How to use another model, they did, yes.

14 MR. NELSON: Do you have that?

15 MR. STARR: No, I don't. It was more of a one-and-one  
16 with Ms. Tise up at Jones & Stokes. I spent the morning up  
17 there one time. We went through the model, and she showed  
18 me how it operated, different steps that we go through. She  
19 -- and then I explained to her what I wanted to get out of  
20 it, and she told me that you'd have to run it in a  
21 step-by-step mode, and trace the steps. You know, once the  
22 winter-run component is calculated, you can stop the model,  
23 grab the data out that you want and put it in another  
24 spreadsheet.

25 MR. NELSON: Did you and she discuss whether or not you  
0109 could numerically combine those, that data?

01 MR. STARR: No.

02 MR. NELSON: I am not sure if I direct this to Mr.  
03 Wernette or Mr. Starr. I still haven't actually gotten  
04 through how you get those bar data, where those numbers are  
05 from, and what the actual values were that that graph is  
06 representing.

07 Could either Mr. Starr or Mr. Wernette provide me with  
08 that information?

09 MR. STARR: Yes. That information, like I said, once  
10 we ran the model for each of the in salmon model, once you  
11 ran for each of the condition, the base condition, the  
12 percent entrainment -- not percent entrainment; base  
13 condition, ESA, CESA, and BA. We pulled that data off into  
14 another spreadsheet. We combined them, and we subtracted  
15 everything from the base condition. When we subtracted  
16 everything from the base condition we came up with a number,  
17 and that is what we considered the, I use the word impact  
18 but I am not saying that is the case. We used that, what  
19 the change would be, based upon operations.

20 MR. NELSON: When you are referring to base conditions,  
21

22 you are talking about the no-project?  
23 MR. STARR: Correct.  
24 MR. NELSON: You are stating that you used -- taking  
25 just the Final Operations Criteria run that you did. Then  
0110  
01 what did you do to compare to the base condition? You  
02 subtracted the base condition from it?  
03 MR. STARR: Yes.  
04 MR. NELSON: You had a percentage change from the base  
05 condition?  
06 MR. STARR: Not a percentage change. We just  
07 subtracted the two and that was -- like I said, use the  
08 impact, that is what the project effects would be.  
09 MR. NELSON: Do you have data that produced these  
10 graphs, or can you identify the actual values in this graph?  
11 MR. STARR: I don't have the data with me, no. But the  
12 data used, it would be base condition plus or minus whatever  
13 the value is up there. See, you'd just assume that it is  
14 ten, the base condition is ten, and the first column, March  
15 of '49, first column, March of '49, you'd have a value of  
16 15, say, .2. Ours would be based on ten, ours would be  
17 minus -- not minus. Our R value would be minutes -- would  
18 be ten, so it would be whatever subtracted from ten. That  
19 be -- I'm drawing a blank here, 9.8 something.  
20 MR. NELSON: Are you familiar with the Biological  
21 Opinion, Page 65, which states what - it states -- it  
22 references two numbers. References a 6.2 percent change for  
23 the winter-run chinook, which is that upper entrainment  
24 index.  
25 Can you explain to me where that 6.2 number is  
0111  
01 reflected in this graph?  
02 MR. WERNETTE: Can I answer that, Joe?  
03 MR. NELSON: Yes.  
04 MR. WERNETTE: The data that Jim just described, you  
05 know, was used to develop percentage that are now in the  
06 Biological Opinion. So, we took a look at the actual base  
07 condition compared to CESA and ESA and didn't use these raw  
08 data or the data presented in these tables, but summarized  
09 in percent change so that we would be able to say in this  
10 particular graph, for instance, what did the project do  
11 under ESA in terms of percent change and what did the  
12 Department's -- with the Department's RPM, what would be the  
13 percent change?  
14 So we converted this -- rather than describe indices  
15 directly or the values in those indexes, try to talk about  
16 it from the standpoint of percent change.  
17 MR. NELSON: Mr. Wernette, on Page 65 -- you have that?  
18 MR. WERNETTE: Yes.  
19 MR. NELSON: You will notice that you say that under  
20 the federal Biological Opinion, the ten highest months,  
21 project operations increase entrainment by an average  
22 percentage of 6.2 winter-run and 22.4 Delta smelt, compared  
23 to existing conditions.  
24 It goes on then to say, states what the CESA Biological  
25 Opinion does, which is 0.66 for winter-run and 17.8 for  
0112

01 Delta smelt, and then it states:  
02           These represent impact reductions of 89.4  
03           percent and 20.5 percent respectively.  
04           (Figure 12.)                   (Reading.)

05           Can you please identify how Figure 12 supports those  
06 numbers?

07           MR. WERNETTE: The -- those numbers alone can't be used  
08 alone to calculate the percentages because you have to look  
09 at the baseline information that Jim referred to a few  
10 minutes ago in order to convert these to percent changes  
11 between with and without project, for each of these  
12 individual months.

13           MR. NELSON: Mr. Stubchaer, this goes to the problems  
14 we've been having trying to figure this out. We have no  
15 idea what the value of the baseline values Fish and Game  
16 used when calculating these numbers, and this graph doesn't  
17 help us at all with respect to how the 6.2, 22.4, and those  
18 numbers are provided. We are at a loss here with respect to  
19 how to analyze Fish and Game's work in this Biological  
20 Opinion because we don't have the data Fish and Game is  
21 basing it off of. And what is provided is a minimal  
22 snapshot with not all the information they are using to base  
23 their percentages on.

24           HEARING OFFICER STUBCHAER: Ms. Murray.

25           MS. MURRAY: I was going to ask -- I believe we got  
0113 most of our data from Jones & Stokes.

02           Did we get the baseline data from Jones & Stokes?

03           MR. STARR: The baseline data, yes. You can calculate  
04 this one, yes.

05           MS. MURRAY: Delta Wetlands has equal access to the  
06 same data.

07           MR. NELSON: We don't have equal access to the methods  
08 by which Fish and Game derived this data. I believe that  
09 the baseline data that Fish and Game was provided by Jones &  
10 Stokes was, as Mr. Starr said, in yearly format, not  
11 monthly. Or correct me if I am wrong, in a sense of what  
12 was the -- did you use Mr. Shaul's baseline data or did you  
13 recalculate it?

14           MR. STARR: No. Like I stated, with the model that --  
15 the M Larvae -- I'm sorry, the M Salmon Model goes out,  
16 looks for certain files. That is what it set up. I have  
17 files that I got from Warren Shaul. We put those into a  
18 file. I go out and tell the computer where, the Lotus  
19 program where to find those files. It goes out, grabs the  
20 file that it needs. We used the most up-to-date data that  
21 Warren Shaul provided, and all the data was used to  
22 calculate this.

23           MR. NELSON: You have separate output? Separate and  
24 apart from what Mr. Shaul provided you, you have separate  
25 output that resulted in your opinion in your analysis; is  
0114 that correct?

02           MR. STARR: No.

03           MR. NELSON: You don't have -- you didn't calculate --  
04 you just stated that you took data out of the DeltaMOVE  
05 Model and then you numerically combined it?

06 MR. STARR: The way the M Larvae -- the M Salmon Model  
07 is set up, it goes out and takes data that has been  
08 processed by the DeltaMOVE Model. That is what I received  
09 from Warren Shaul.

10 I go into the Lotus program. I tell Lotus where to  
11 find that data at. It goes and looks for it in that file.  
12 It grabs what it needs, and it calculates the numbers that  
13 we want. And then I step through in a step-by-step mode so  
14 I can stop it before it goes and averages it over 70 years  
15 and gives me one number instead of 12 numbers.

16 MR. NELSON: When he stopped it, you were stopping the  
17 model, you were taking data out of it, and the you were  
18 combining other boxes with that; is that correct?

19 MR. STARR: No. The way the M Larvae Model is set up,  
20 it only has four boxes that it looks at to show effects on  
21 winter-run, fall-run, and, I believe, late-fall run. There  
22 is only four boxes in there. Those boxes were shown in  
23 earlier testimony by Mr. Wernette. And those four boxes are  
24 combined.

25 MR. NELSON: Do you have the data output that you used  
0115 to calculate the figures on Page 65?

01 MR. STARR: Yes.

02 MR. NELSON: Can they be provided as an exhibit to the  
03 Board?

04 MS. MURRAY: Yes, we can make that available to Delta  
05 Wetlands.

06 MR. NELSON: Thank you.

07 HEARING OFFICER STUBCHAER: Mr. Nelson, I am going to  
08 ask again, how much longer do you think --

09 MR. NELSON: I will be honest with you, I have -- we  
10 have several other graphs, and we have no clue what Fish and  
11 Game did with, that we need to go through on cross, outside  
12 of taking quite a while to get through understanding these  
13 graphs and data.

14 Given the length of the statements so far, I think it  
15 is going to take me another hour just to get through the  
16 other figures. I have limited -- there is about ten that we  
17 have questions on. I'm limiting it to three, two graphs and  
18 one set of data that we need to understand where they got  
19 their measures from. After that, probably another hour from  
20 there. I trying to get through this as quickly as  
21 possible. But, the graphs and the information that is  
22 provided in the Biological Opinion are so sketchy that it is  
23 necessary to go through this cross and get the information  
24 that we are getting, so we can properly analyze the  
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01 Biological Opinion.

02 HEARING OFFICER STUBCHAER: I understand why you need  
03 the data. It's tedious getting there.

04 Does anyone have any suggestions on how we can expedite  
05 this process? Is there some data that Fish and Game might  
06 provide to you, I hate to say tomorrow, but it looks like we  
07 are going to go tomorrow, and look at it overnight and come  
08 back and have more precise questions in the morning?

09 MR. NELSON: The difficulty is, getting the data  
10 tomorrow, it will probably take us a day just to analyze

11 data. The quicker we get it, the better off we are. It  
12 still -- we would probably still have questions as to what  
13 the data does? All we are going to see is raw output, and  
14 we won't know how and what figures. We have to have  
15 instructions, the protocol by which they ran the model and  
16 the actual output data to be able to under this outside of  
17 going through this cross.

18 MS. MURRAY: It would be helpful if Delta Wetlands  
19 told us which figures they want to get information, further  
20 information on. Over lunch we can see what we have with  
21 us.

22 HEARING OFFICER STUBCHAER: That might be helpful.

23 MR. NELSON: I will do that, and I will also talk with  
24 our experts as to what they are needing as to what they have  
25 not be able to figure out about this data. They may have  
0117

01 defined enough from the cross so far, but I assume we are  
02 going to have a couple more questions. But I will work with  
03 Ms. Murray to cut them down as much as possible.

04 HEARING OFFICER STUBCHAER: I am also considering  
05 Caltrans' request.

06 Is Mr. Cowell here?

07 MR. COWELL: Yes, sir.

08 HEARING OFFICER STUBCHAER: How long do you think  
09 Caltrans' direct testimony would take?

10 MR. COWELL: Fifteen to twenty minutes. I don't -- it  
11 won't be very long.

12 HEARING OFFICER STUBCHAER: How many parties wish to  
13 cross-examine Caltrans?

14 Delta Wetlands and Mr. Moss.

15 MS. MURRAY: We might have one question.

16 MS. BRENNER: Ours is very, very limited.

17 HEARING OFFICER STUBCHAER: Would there be any  
18 objection to taking Caltrans up after lunch and trying to  
19 accommodate their schedule if it looks like it wouldn't take  
20 more than an hour?

21 MS. MURRAY: As long as we can finish with our panel  
22 today. Mr. Rugg's availability is limited. And we would --  
23 we were told at the beginning of last week that Delta  
24 Wetlands would take two and a half hours on  
25 cross-examination. Clearly, thinking that if we started at  
0118

01 nine, we would be done by the end of the day. I would like  
02 to see Delta Wetlands finish today. I don't think 20  
03 minutes should hinder that, as long as they do finish  
04 today.

05 MR. NELSON: I can't promise that we would finish. If  
06 it takes longer than 4:40 to get through the cross -- I am  
07 trying to move as quickly as possible. It depends upon the  
08 answer and how quickly Fish and Game is able to explain some  
09 of these figures and graphs and how short their answers are  
10 to the cross. I've limited my questions. It is a matter of  
11 the responses I am getting, not the question I am asking.

12 HEARING OFFICER STUBCHAER: There is some entropy in  
13 the give and take. The loss of loss of information and  
14 confusion.

15 Staff have any suggestions on how we might streamline

16 this? Just fishing.

17 MS. LEIDIGH: I would like to suggest that we find out  
18 whether anybody is going to ask any cross-examination  
19 questions of Mr. Rugg because, if there are not, then it  
20 matters less as to whether we go into tomorrow with Fish and  
21 Game.

22 MR. NELSON: We have no cross-questions for Mr. Rugg.

23 MS. LEIDIGH: Anybody else?

24 HEARING OFFICER STUBCHAER: Staff remains.

25 MS. MURRAY: It may be hard to predict potential  
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01 questions. Mr. Rugg is a water quality expert, and unless  
02 Delta Wetlands is going to stipulate that they won't ask  
03 anything that has to do with water quality?

04 MR. NELSON: I am certainly going to ask questions  
05 about water quality with respect to temperature and DO. I  
06 believe that Mr. Rugg is not the primary author of the  
07 temperature and DO testimony, and that Dr. Rich is. I am  
08 not sure if Mr. Rugg is going to do anything other than  
09 testify to the pH and turbidity issues that Delta Wetlands  
10 is not planning to cross-examine on.

11 MS. MURRAY: Mr. Rugg has years of field experience  
12 within the Department, and we feel that he is an important  
13 part of this team.

14 HEARING OFFICER STUBCHAER: Let's see what happens over  
15 the lunch hour. You can tell me when we resume after lunch  
16 and we will make a decision.

17 Mr. Cowell, we are trying. As you can see, it is  
18 difficult.

19 MR. COWELL: Thank you; appreciate it.

20 HEARING OFFICER STUBCHAER: Let's take our lunch break.  
21 We will reconvene at 1:10 p.m.

22 (Luncheon break taken.)

23 ----oOo----

24 //

25 //

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01 AFTERNOON SESSION

02 ----oOo----

03 HEARING OFFICER STUBCHAER: We will reconvene the  
04 Delta Wetlands' water rights hearing.

05 Before you resume, Mr. Nelson, I want to go over a  
06 little revision in our order of proceeding. What I think we  
07 will do is ask that you cross-examine Mr. Rugg.

08 MS. MURRAY: I asked over the lunch, and he can be here  
09 tomorrow.

10 HEARING OFFICER STUBCHAER: He can be here tomorrow?

11 MS. MURRAY: Yes.

12 HEARING OFFICER STUBCHAER: All right. Well then,  
13 under certain conditions, we are going to try to take the  
14 direct testimony of Mr. Margiotta and interrupt this  
15 cross-examination and then, also, Caltrans, if they will  
16 both stipulate to no more than 20 minutes on their direct,  
17 and that way we can get them out of the way and won't be  
18 under time pressure with your cross-examination.

19 Mr. Cowell, will you stipulate to the 20 minutes on the  
20 direct?

21 MR. COWELL: Yes.  
22 HEARING OFFICER STUBCHAER: Is Mr. Margiotta back yet?  
23 Can you do it in 20 minutes?  
24 MR. MARGIOTTA: Oh, yeah.  
25 HEARING OFFICER STUBCHAER: That is good. I like your  
0121 self-confidence.  
02 (Discussion held off the record.)  
03 ---oOo---  
04 DIRECT TESTIMONY OF PETER M. MARGIOTTA  
05 MR. MARGIOTTA: Good afternoon, I guess.  
06 HEARING OFFICER STUBCHAER: State your name and address  
07 for the Court Reporter.  
08 MR. MARGIOTTA: My name is Peter Margiotta,  
09 M-a-r-g-i-o-t-t-a. Address is 122 Castle Crest Road, Walnut  
10 Creek, California, 94595.  
11 Thank you, Mr. Stubchaer for the accommodation. I  
12 guess my expertise, I will start with a little bit about,  
13 stems from a lifetime of use and experience in the Delta, at  
14 least 30 years of intensive activity. I have been engaged  
15 for over ten years on Webb Tract Island specifically  
16 conducting a wildlife management project, which was  
17 recognized by adjoining islands in their management --  
18 subsequent changes in their management practices.  
19 I guess my interests, unlike most of the people here,  
20 has nothing to do with any monetary or land ownership. My  
21 interest is strictly from perspective of the lifestyle that  
22 the Delta provides to the public and specifically to  
23 myself.  
24 HEARING OFFICER STUBCHAER: Mr. Margiotta, let me  
25 interrupt you. I didn't ask you to identify your exhibits.  
0122 We should probably do that. They are in the record. They  
01 were distributed.  
02 Staff, do we have numbers for Mr. Margiotta?  
03 MR. MARGIOTTA: It would be Margiotta 1, I presume.  
04 HEARING OFFICER STUBCHAER: Your statement of  
05 qualifications might be 1 and --  
06 MR. MARGIOTTA: Two would be my direct testimony.  
07 HEARING OFFICER STUBCHAER: I want to make sure we have  
08 them.  
09 MS. LEIDIGH: We have a statement of qualifications.  
10 MR. MARGIOTTA: Correct.  
11 MS. LEIDIGH: And then a letter addressed to Jim  
12 Sutton, which is entitled Delta Wetlands Project Water  
13 Rights Hearing Testimony.  
14 HEARING OFFICER STUBCHAER: Are we calling those Mar 1  
15 and Mar 2?  
16 MR. SUTTON: Margiotta.  
17 MS. LEIDIGH: The qualifications would be Margiotta 1  
18 and the testimony would be Margiotta 2.  
19 MR. MARGIOTTA: Thank you for doing that for me.  
20 As I was saying, my interest is in the lifestyle that  
21 the Delta provides the public and those that have the  
22 opportunity to use its resources. Also, my interest is in  
23 the -- a long-time perception of mine that the Delta's  
24 highest and best potential use for the future is for the  
25

0123

01 enhancement of wildlife that is indigenous to the Delta  
02 region. I think that is being substantiated as an  
03 important issue based upon the initiatives that have passed  
04 in the state and the fact that there is an agency monitoring  
05 the Delta.

06 I have spent hundreds of hours on behalf of Contra  
07 Costa County on its Fish and Wildlife Committee reviewing  
08 numbers of EIRs concerning water projects that impact our  
09 county. It gives me a perspective, also, of what other  
10 agencies have been doing in terms of water activities in the  
11 Delta. I have also spent a number of hours, over 15 years  
12 of time, surveying the Delta both on the water, on the land,  
13 on the islands, and aerially. I have had the opportunity to  
14 fly the Delta every year, multiple times a year, as well as  
15 the San Joaquin and Sacramento Valley. So it gives me that  
16 perspective as well.

17 I think that gives me an opportunity to look at things,  
18 not from necessarily a scientific point of view, but from a  
19 clinical observation point of view. My observations are not  
20 from eight to five during the day. They occur at all hours  
21 of the day and night. And as a consumer of the resources of  
22 the Delta and as a conservationist, my concern is to see  
23 that those resources are preserved and enhanced.

24 I first became aware of Delta Wetlands Project in  
25 approximately 1987. So I've been following this project

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01 with great interest for ten years. When the project  
02 initially came out, I was vehemently opposed to it, and I  
03 took major steps, from my perspective, to stop the project  
04 or see that it be modified, because I saw the project in its  
05 initial presentation as a real detriment to the Delta.

06 I conducted these objections in a broad way. I  
07 contacted a variety of wildlife organizations: California  
08 Wildlife Federation, the Contra Costa Fish and Wildlife  
09 Committee, Audubon Society, and a large number of other  
10 agencies, California Waterfowl Association, and Ducks  
11 Unlimited. And I campaigned actively to bring about changes  
12 in this project.

13 When the project transitioned from four island  
14 reservoirs as self-mitigating to two island reservoirs and  
15 9,000 acres of habitat mitigation, and that mitigation  
16 appeared to me to take on a perspective of the indigenous  
17 species of the Delta, my concerns did a 180 degrees.

18 I believe this project, unlike any other project that I  
19 am aware of in the Delta, has a potential of offering  
20 wildlife benefits back into the Delta that have never  
21 existed in at least the last hundred years. I personally am  
22 opposed to any transport of water out of the Delta region.  
23 However, recognizing that our state is going to continue to  
24 grow and the continued need for water will persist, as long  
25 as those waters and the wildlife values associated with them

0125

01 are protected, as I believe they are being or proposed to be  
02 by the current project proponent, it is much less  
03 distasteful to me.

04 The fertility and diversity of the habitat, combined

05 with the water rights or fresh water qualities of the Delta,  
06 are unique in the Western United States. And I believe the  
07 Delta has the potential for becoming a wildlife womb of the  
08 Western United States.

09 The two habitat islands can provide greater wildlife  
10 benefits than have ever been seen anywhere, I believe, in  
11 the State of California. While the issues were not  
12 originally addressed concerning nesting, they are now being  
13 addressed. And I believe as the nesting benefits of the  
14 indigenous species of the Delta begin to become realized  
15 under a flexible management regime, it will become obvious  
16 to the population of this state that the highest and best  
17 use of the Delta is for wildlife mitigation.

18 And if water is to be transported and stored, then the  
19 ratios used by this project will probably be, hopefully, a  
20 minimum that would be established as a baseline for future  
21 water projects. Every other water project, as I stated,  
22 that I am aware of only takes. I have not read any EIRs  
23 that propose the kinds of wildlife mitigation that is being  
24 proposed by this project. I am greatly concerned that the  
25 written testimony that I have reviewed -- I am sorry, that  
0126

01 is argumentative. I am not going to do that.

02 HEARING OFFICER STUBCHAER: Under direct -- it's cross  
03 where you can't be argumentative.

04 MR. MARGIOTTA: I believe that the Delta Wetlands  
05 habitat plan is a very good start. One of the HMPs greatest  
06 assets is the builtin flexibility and adjustability of the  
07 habitat management procedures, and I want to state that I  
08 believe that is critical.

09 In my experience with the wetlands management on Webb  
10 Tract Island, we have great many of ideas and theories, but  
11 until you begin to put them in practice and see what Mother  
12 Nature has in store for you, you will not fully comprehend  
13 the benefits.

14 The other issue for me in terms of the habitat  
15 benefits, those benefits should have some sort of measure.  
16 In my review of other mitigation projects, the measures are  
17 generally narrow and do not take into consideration the  
18 impact of other necessarily indigenous species. I feel that  
19 with time and study greater Habitat Management Plan values  
20 will be placed on Delta Wetlands' mitigation islands.

21 I believe that the potential for nesting required by  
22 the mallard, gadwall, teal, wood duck, short eared owl,  
23 marsh hawk, and ring-neck pheasants will clearly establish  
24 its value. Establishing the habitat provided for these  
25 species, I believe, will benefit all the other indigenous  
0127

01 species that will have ever used these islands. And when I  
02 say indigenous, I mean those that are existing in the Delta  
03 today and a hundred years ago, or more. I do not feel that  
04 the amount of emphasis that has been placed on indigenous --  
05 not indigenous, but threatened species that now use the  
06 Delta, should drive the mitigation habitat plans of this  
07 project.

08 I believe that in some cases those management proposals  
09 could be to the detriment of indigenous species,

10 particularly land nesters. I also feel that Delta Wetlands  
11 Habitat Plan will clearly show that increasing brood pond  
12 and pair water for waterfowl to at least a ten percent level  
13 of the total land mass of each of the habitat islands will  
14 provide more new wildlife values than has ever been seen in  
15 the Delta in over a hundred years.

16 The brood and pair water plan should provide meandering  
17 and interconnecting patterns with sufficient emergent plant  
18 growth required to reduce predation of brood. Currently  
19 what occurs in the Delta in agricultural is all of the  
20 irrigation ditches become a fast food chain for predators  
21 because those lines are very clearly delineated, and it  
22 makes the predation much simpler for them.

23 Delta Wetlands Habitat Management Plan seems a variety  
24 of well planned brood ponds as well as required winter  
25 flooding for the Pacific Flyway migration of waterfowl and  
0128 related species.

02 Corn and wheat acreage on the two habitat islands  
03 should only exist if irrigation can be provided in other  
04 than the traditional use of spud ditches. The elimination  
05 of spud ditches will provide thousands of acres of habitat  
06 that will no longer be cropland killing fields, which they  
07 currently are. And that is why I believe the Delta has  
08 never received the recognition of the potential for nesting  
09 that it holds.

10 I am in strong support of agriculture, quote-unquote,  
11 agricultural friendly practices. But I have viewed this  
12 project not as an agricultural project. The habitat islands  
13 should be mitigation for the losses of wildlife on the other  
14 two islands and the future potential values.

15 The spud ditches should be redesigned to be  
16 shallow-walled V ditches, so that any ground nester, young,  
17 that fall into them can easily be gotten out by their parent  
18 or by themselves.

19 I am very pleased and supportive of the proactive  
20 research that is proposed by the Delta Wetlands Project.  
21 This research and in conjunction with flexible habitat  
22 planning, I believe, will and should become a model for all  
23 future habitat plans and mitigation in the Delta.

24 I believe that any project, under whatever title or  
25 guise that is presented, such as CAL/FED's initiative that  
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01 was passed by the State to reinstate wildlife values in the  
02 Delta, should propose its plans, using the same  
03 environmental procedures that was used by this project, to  
04 the best of their ability, substantiate that what they are  
05 proposing is going to be of value.

06 The research that is completed by Delta Wetlands should  
07 be written and the findings submitted to the public for  
08 review as well as peer review at the conclusion of each  
09 research component. The research and written findings  
10 should establish the carrying capacity and use by the  
11 Pacific Flyway, and migrating waterfowl should also be  
12 completed to determine the validity of the habitat  
13 management success during the first three to five years of  
14 the project.

15 During this time, the research should also include an  
16 evaluation and assessment of the food sources that the  
17 indigenous species, in particular the waterfowl, that use  
18 the habitat islands. So that it can be determined whether  
19 or not the agricultural practices are, indeed, providing the  
20 necessary component for their life cycle, or if the wild,  
21 natural grasses that will grow and be managed on the island  
22 will take up what the crops have been providing. At the  
23 point that it is determined that those crops are no longer  
24 essential, they should be removed from the islands.

25 HEARING OFFICER STUBCHAER: Incidentally, you have  
0130 about five minutes.

02 MR. MARGIOTTA: Thank you.

03 The continuing planting of corn and wheat should stop  
04 as soon as that is determined.

05 The overall management of the Delta Wetlands' islands  
06 must remain flexible, again as I stated, to respond to any  
07 rapid disease that may occur or outbreaks or overpopulation  
08 of any one species that is occurring at the destruction of  
09 another species.

10 The waterfowl and recreational opportunities of this  
11 project are significant. And in light of Fish and Game  
12 Department's commissions policy of no net loss for hunting  
13 activities in the state, I believe this project will more  
14 than meet that requirement, with the exception of the areas  
15 that are being recommended as closed zones by the Department  
16 of Fish and Game. I do not believe the closed zones are  
17 necessary, provided that the density of hunting is reduced  
18 or a stipulation for the density of hunting per acre. I  
19 believe that quality hunting and quality habitat go hand and  
20 hand with quality waterfowl management and quality wildlife  
21 resources.

22 I believe that the unnatural concentration of birds in  
23 closed zones or on reservoirs islands rafted creates an  
24 opportunity for disease that man has not been able to  
25 demonstrate an ability to respond to. The Department of

0131  
01 Fish and Game and their refuges, waterfowl clubs all over  
02 the state, while they take steps to do so, do not stop the  
03 death of wildlife. I believe, furthermore, that the closed  
04 zones create an unnecessary concentration of birds that will  
05 act as a detriment to adjoining land users enjoyment of  
06 their land, by unnaturally concentrating the birds in those  
07 closed zones.

08 The concept of closed zones is a result of the fish and  
09 game agency suffering from what I call a paradigm  
10 paralysis. That paradigm being the state fish and game  
11 refuges, which have operated under the method of closed  
12 zones and hunting areas for over 50 years, or close to 50  
13 years.

14 And I think it stems from the recommendation of --  
15 closed zones stem from a lack of experience and the  
16 management of low density, high quality hunting in high  
17 quality wetlands.

18 In closing, I believe this project provides many  
19 benefits. They're listed in my testimony. I am not going

20 to review them. Again, while I'm generally opposed to water  
21 transport projects in the Delta, this project provides so  
22 many wildlife benefits that I have changed my traditional  
23 objection to a strong support of the Delta Wetlands  
24 Project.

25 I strongly urge that the State Water Resources Control  
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01 Board expedite the granting of the rights of Delta Wetlands  
02 Project so that the wildlife benefits can proceed without  
03 further delay.

04 I further believe that the management of these wetlands  
05 should not be put in the hands of a governmental agency  
06 because of the funding cycles that occur within the  
07 government do not usually correspond with the needs of  
08 wildlife. I also believe that the government procedures do  
09 not have the builtin accountability for staff that I would  
10 expect for such a large project. I think there should be  
11 mandated outcomes of the employees of the project,  
12 mitigation habitat project, and there should be consequences  
13 for not meeting those employment requirements. Again, the  
14 water diversion from the Delta and San Francisco Bay  
15 esturaries should occur under the Delta Wetlands Project  
16 proposed Alternatives 1 and 2 and not under the project  
17 Alternative 3. The final operation criteria developed in  
18 Section 7 process should be tied into permit conditions.

19 I want to thank you for your consideration and time.

20 HEARING OFFICER STUBCHAER: Thank you, Mr. Margiotta.  
21 You have a great sense of timing.

22 Who wishes to cross-examine Mr. Margiotta?  
23 Staff?

24 Mr. Brown?

25 Thank you for your input.

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01 MS. LEIDIGH: Mr. Margiotta, would you like to offer  
02 your exhibits in evidence?

03 MR. MARGIOTTA: Yes. I thought we did that.

04 MS. LEIDIGH: You introduced them.

05 MR. MARGIOTTA: I would like to offer them into  
06 evidence.

07 HEARING OFFICER STUBCHAER: Are there any objections?

08 Seeing none, they are accepted.

09 Thank you, Ms. Leidigh.

10 Caltrans, Mr. Cowell.

11 Mr. Cowell, good afternoon.

12 MR. COWELL: Good afternoon, Mr. Stubchaer, Mr. Brown.

13 I would like to first thank you, again, for  
14 accommodating us and taking us out of order this afternoon.  
15 I appreciate that very much.

16 ---oOo---

17 DIRECT TESTIMONY OF DEPARTMENT OF TRANSPORTATION

18 BY MR. COWELL

19 MR. COWELL: I would like to briefly introduce the  
20 others that are here from the Department of Transportation  
21 offices in Stockton this afternoon.

22 First, to my immediate right is Victoria Alvarez, who  
23 is a biologist with Caltrans, and she will also be providing  
24 direct testimony with me.

25           Next is Cliff Adams, who is our Acting District  
0134  
01 Director in our Stockton office for maintenance.  
02           Next to Cliff is Tom Rassmussen who is senior  
03 right-of-way agent for Caltrans.  
04           Next to Tom is Larry Thelen who is legal counsel for  
05 Caltrans.  
06           And, finally, in the corner there is Edward Franzen who  
07 is a project engineer for Caltrans.  
08           In addition to Victoria and myself, who will be giving  
09 direct testimony, Mr. Adams, Mr. Rassmussen, and Mr. Franzen  
10 are available for discussion on cross-examination, and Mr.  
11 Thelen is here to handle any legal questions that may come  
12 up during our testimony.  
13           HEARING OFFICER STUBCHAER: Have all the witnesses  
14 taken the oath?  
15           MR. COWELL: I don't believe they have, sir.  
16                   (Oath administered by Mr. Stubchaer.)  
17           MR. COWELL: We recognize that we are really an  
18 unusual or kind of fringe issue here with these  
19 proceedings. And our interests are not as you have heard  
20 with other water rights protests or issues that come  
21 forward. Our interests are very specific to Highway 12 and  
22 to Bouldin Island.  
23           I would like to apprise the Board Members at the outset  
24 of our testimony that we have continued to negotiate with  
25 representatives from Delta Wetlands. We have been in  
0135  
01 contact several times over the last few weeks. And we  
02 believe that we are reaching the framework for a settlement  
03 of our protest. We are not there yet, I want to emphasize,  
04 but we believe that we are getting close, and that there is  
05 a way to get our issues addressed and at a comfort level  
06 that we hope is there for the applicant for this project as  
07 well.  
08           In particular, the genesis of that settlement has to do  
09 with a 100-foot portion of land that is immediately south of  
10 the Caltrans existing right-of-way on Bouldin Island. That  
11 100-foot area, when you look at the entire area that is  
12 being considered for the Habitat Management Plan of the  
13 9,000 acres is, as we understand it, is approximately 50  
14 acres or about seven-tenths of one percent of the full  
15 Habitat Management Planning area that you are discussing.  
16           The basis for the agreement that we are working towards  
17 would be for the Department of Transportation to purchase  
18 that 100-foot area as a part of a program that we have that  
19 is called a protection program for right-of-way that we will  
20 need for future improvements to the transportation system.  
21 And, further, as a part of that agreement, enter into a  
22 capitalized understanding with Delta Wetlands, where they  
23 would be taking care of our property for a period of time  
24 into the future. Specifically, they would be -- that intent  
25 with carrying the property would have that hundred-foot  
0136  
01 strip continue as farm land, basically, as it is today on  
02 the island.  
03           Third item that we have discussed, and that I believe

04 we have conceptual agreement, would be appropriate to add  
05 into our resolution of our water rights protest is entering  
06 into a maintenance agreement between ourselves and Delta  
07 Wetlands which would basically document who is responsible  
08 for what and what understandings we have in terms of  
09 maintenance of facilities that affect each other's  
10 properties just adjacent to the highway.

11 Going in my specific testimony --

12 HEARING OFFICER STUBCHAER: Do you want to identify  
13 exhibits now.

14 MR. COWELL: I will as we go through.

15 Thank you, Mr. Stubchaer.

16 Our interest here today, again, with the Delta Wetlands  
17 Project is very specific to an individual issue, and that is  
18 the project's effect on approximately the four and a half  
19 mile length of Highway 12 as it traverses Bouldin Island.  
20 That is our sole purpose for appearing before you today. We  
21 have no other interest or position in regards to this  
22 project.

23 To highlight for you our specific concerns in regards  
24 to Highway 12, are the use of Bouldin Island as a mitigation  
25 island as part of the Delta Wetland Project, and its

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01 creation of a Habitat Management Plan and sensitive  
02 environmental areas that would be immediately up to the  
03 right-of-way for the existing right-of-way for Highway 12  
04 and on either side of that right-of-way.

05 We will also be speaking briefly this afternoon to some  
06 of the issues, some issues that we have in the assessment of  
07 impacts to Highway 12 as they were captured in the  
08 Environmental Report/Environmental Impact Statement for  
09 Delta Wetlands, and the need to ensure the structural  
10 integrity of Highway 12 as a facility and in relationship to  
11 implementation of the habitat plan.

12 If I could have the first overhead.

13 If I may note to you, this was not an exhibit that we  
14 have submitted before today. This was not an exhibit that  
15 we submitted originally with our package. I have talked  
16 with counsel for Delta Wetlands and they have indicated  
17 before meeting this morning that they had no objection to  
18 our using it. If there is anyone else we should consult, we  
19 will be happy to do so.

20 HEARING OFFICER STUBCHAER: This appears to be a map  
21 showing State Route 12.

22 Does anyone object to this exhibit?

23 Seeing none, we will mark it for identification.

24 MS. LEIDIGH: We will need an exhibit number for this.  
25 I think you have 15, so this will be your Exhibit Number

0138

01 16.

02 MR. COWELL: Yes. And we do have copies of this  
03 available for anyone who is interested.

04 MS. LEIDIGH: We will need 13 copies of this for the  
05 Board and staff, and there will need to be copies for all of  
06 the parties.

07 MR. COWELL: I don't believe we have that many  
08 available, so perhaps we can talk with you after this

09 presentation and get copies.

10 MS. LEIDIGH: I think he can make some copies in the  
11 adjacent room, if you will provide them to Mr. Cornelius or  
12 Mr. Sutton.

13 MR. COWELL: Just by way of very quick overview  
14 concerning Highway 12, it is two-lane highway that is 110  
15 feet wide as it goes across Bouldin Island. This four and a  
16 half mile section of Highway 12 is part of approximately a  
17 quarter mile section of the highway connects Interstate 80  
18 in Solano County with Vacaville/Fairfield area and Highway 5  
19 in the San Joaquin Valley around the community of Lodi. So  
20 it does connect two interstate highways and it is the  
21 primary connection between the North Bay area and the San  
22 Joaquin Valley.

23 There is no other state highway between Sacramento and  
24 Stockton at a distance of approximately 45 miles. Highway  
25 12 is considered part of the National Highway System. This  
0139  
01 is a designation that was made by Congress in 1995 as a part  
02 of their implementation of Federal Transportation Law. The  
03 National Highway System was intended to supersede the  
04 Interstate Highway System in terms of the national interest  
05 for a highway.

06 Highway 12 is one of those highways in California that  
07 is considered as part of the National Highway System. I say  
08 that simply to illustrate it is a fairly significant highway  
09 system.

10 There are currently approximately 14,000 daily trips on  
11 Bouldin Island on Highway 12. Approximately 16 percent of  
12 those trips are truck drivers. So there is a considerable  
13 amount of freight movement, commodity movement on this  
14 highway.

15 We find that this a difficult road for us to maintain  
16 because of the conditions on Bouldin Island, particularly  
17 because of the peat soils that we are working with. The  
18 20-year projections of traffic under cumulative conditions  
19 on Highway 12 that have been developed by the San Joaquin  
20 Council of Governments, which is the transportation planning  
21 agency in San Joaquin County, indicates that as traffic  
22 grows on Highway 12, we will be reaching a situation where  
23 we have what is called level of service F conditions. What  
24 that means is that highway would be at breakdown conditions;  
25 it would be over its capacity in two lanes.

0140  
01 There has been identified as a part of a half cent  
02 sales tax measure, which has been passed and in effect in  
03 San Joaquin County, a project for passing lanes on Bouldin  
04 Island. This project also is reflected in the Regional  
05 Transportation Plan for San Joaquin County.

06 In a recent corridor study of Highway 12 that was done  
07 by the Council of Governments for San Joaquin County, and I  
08 am referring here and we'd like to enter into evidence, our  
09 Exhibit Number 2. The study reflects that prior to the year  
10 2010 there's a need to implement those passing lanes  
11 projects, make improvements on Highway 12 on Bouldin  
12 Island. And that by the year 2020 there is need to build a  
13 full four-lane section across Bouldin Island to expand its

14 capacity.

15 HEARING OFFICER STUBCHAER: What we do by way of  
16 procedure is we identify the exhibits initially, and then at  
17 the close of your testimony and cross-examination, if any,  
18 then you can move that, and we accept them into evidence.

19 You have a list here. It is called Exhibit  
20 Identification Index, Sheet 1 of 1. It might be more  
21 expeditious timewise if you can refer to that and just say  
22 those are your exhibits plus the additional map.

23 MR. COWELL: Thank you. I will indicate that these  
24 are exhibits, plus the additional map that we will be using  
25 this afternoon.

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01 MS. LEIDIGH: I would like just to make a point of  
02 clarification. Mr. Sutton and I noticed that there is no  
03 piece of paper for Exhibit 15, and I assume you do not have  
04 an Exhibit 15.

05 HEARING OFFICER STUBCHAER: That is Larry Thelen.

06 MS. LEIDIGH: Qualifications for Larry Thelen.

07 MR. COWELL: I cannot remember right off hand, but it  
08 could be that, in fact, although we submitted Mr. Thelen as  
09 an expert witness, we did not provide a statement of  
10 qualifications.

11 MR. THELEN: I am not here -- this is Larry Thelen. I  
12 am not here as a witness. I am here as counsel for  
13 Caltrans. I don't plan to testify in the hearing.

14 MS. LEIDIGH: So there is no Exhibit 15, then. It is 1  
15 through 14 and 16 in the exhibits.

16 MR. COWELL: Thank you.

17 I would just also note in summary that the study, the  
18 corridor study of Highway 12, as it looks at accidents  
19 across Bouldin Island, indicates that we currently have a  
20 situation where we have above our statewide average  
21 accidents as they relate to fatality accidents, and they are  
22 at about the statewide average for injury and fatality  
23 accidents in total number of accidents. We are, in fact,  
24 we have a situation where we're somewhat above the statewide  
25 average for fatality accidents on Highway 12.

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01 We recently did a minor project out on the highway to  
02 better delineate because of safety reasons.

03 Caltrans right now is developing our initial  
04 engineering document, called a Project Study Report that we  
05 referred to in our written testimony that has been in  
06 preparation for the possible funding of that passing lane  
07 project as a part of the 1998 State Transportation  
08 Improvement Program. We did not know if, in fact, there  
09 will be enough money to get this project funded, but we are  
10 preparing for it and it is a significant, fairly high  
11 priority in San Joaquin County.

12 For purposes of working with Water Resources and the  
13 applicant for this project, Caltrans has determined that  
14 approximately a hundred-foot strip of land just to the south  
15 of the existing right-of-way on Bouldin Island would be  
16 necessary for future widening of this highway to four lanes.

17 If I could ask you to put up a typical section, please,  
18 for what that future improvement would look like. If you

19 can show out existing roadbed --

20 MS. LEIDIGH: Is this is an exhibit?

21 MR. COWELL: Yes.

22 MS. LEIDIGH: Which one?

23 MR. COWELL: Five. If you could please show our  
24 existing right-of-way and our existing roadbed.

25 MR. FRANZEN: Right-of-way.

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01 MR. COWELL: Under a four-lane configuration, the  
02 median, the new roadbed, and new right-of-way.

03 MR. FRANZEN: New roadway over here.

04 MR. COWELL: From the point of our existing  
05 right-of-way to the south where the proposed right-of-way  
06 would end is that 100-foot strip that we are speaking to.

07 The Draft Environmental Impact Report for this project  
08 indicates that operation of Delta Wetland would  
09 incrementally, although in small amount of additional amount  
10 of traffic, but would incrementally add to the cumulative  
11 traffic which will be out on Highway 12 in the future, as  
12 this project is built and begins to operate with marinas and  
13 duck hunting clubs and other activities that are scheduled  
14 for Bouldin Island.

15 The Environmental Impact Report identifies future  
16 cumulative traffic conditions would be an adverse impact.  
17 We would just note, this project will also be providing  
18 connections to the highway out to the facilities, such as  
19 marinas, which would also add new intersecting points of  
20 traffic on a fairly high speed highway out in the Delta.  
21 That will also have an impact on the operations of the  
22 highway.

23 So, in summary, there has been identified a need for  
24 future improvements and, in fact, there is some very serious  
25 planning, some additional engineering towards making

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01 improvements to the highway.

02 However, the Draft Environmental Impact Report  
03 indicates that there is no feasible mitigation because of no  
04 financing for future improvements to Highway 12. We think  
05 that, frankly, is an inaccuracy in the environmental  
06 document. There is, in fact, as I mentioned, a proposed  
07 project for passing lanes that both shows up in the tax  
08 measure plan for San Joaquin County, the official regional  
09 plan for San Joaquin County and is a possible project for  
10 for funding in 1998.

11 Additionally, as we have also referenced, the recently  
12 completed corridor study for Highway 12 also indicates that  
13 there is a clear need to make four-lane improvements out on  
14 that highway by the year 2020.

15 HEARING OFFICER STUBCHAER: Excuse me, I stopped the  
16 timer. Mr. Brown mentioned that the exhibit on the overhead  
17 is a little different than Exhibit 5 which is in the  
18 testimony. It appears that it is.

19 MR. COWELL: I don't have my original testimony in  
20 front of me. Perhaps, we can identify where the difference  
21 is.

22 HEARING OFFICER STUBCHAER: This shows a ditch on the  
23 right side and a 15-foot PCE on the left side. Does not

24 include a cross-section that is in the upper left-hand  
25 corner of the Exhibit 5, which is on paper. I don't know if  
0145

01 it is very substantive, but the record should be clear that  
02 there is a difference between Exhibit 5 and the overhead.

03 I would say that, just to move things along, that  
04 Exhibit 5 in the written materials is the official document,  
05 and this, you can say, is illustrative of a typical  
06 cross-section without showing all the details that is on the  
07 paper exhibit.

08 MEMBER BROWN: I have concern with the levee by owners  
09 and descriptive side as it compares with the road height.

10 HEARING OFFICER STUBCHAER: Did you hear that?

11 MR. FRANZEN: Yes.

12 HEARING OFFICER STUBCHAER: Is there any comment on the  
13 levee at the extreme right-hand side?

14 MR. COWELL: Mr. Stubacker [verbatim], I would  
15 indicate to you that we do not know what the height of that  
16 levee would be, and we do not know in precise terms, at this  
17 point, because we have only just done preliminary work for  
18 future four-lane facility, exactly what the height of our  
19 highway would be. So, that may be misleading in terms of  
20 that relationship there. That, again, is just for  
21 illustrative purposes, only to kind of show that the levee,  
22 in fact, is outside of the future right-of-way as we were  
23 wanting to talk about it earlier.

24 HEARING OFFICER STUBCHAER: The official Exhibit 5  
25 doesn't show the levees, so it won't be an issue here.

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01 MR. COWELL: So, in summary of this first part of our  
02 testimony, we want to indicate that the environmental  
03 document for this project does not address the future  
04 four-lane improvements that have been identified or the  
05 future improvements in general there that have been  
06 identified as needed for Highway 12, Bouldin Island.

07 This means that the environmental documentation has not  
08 considered the effect of Delta Wetlands Alternatives 1 and 2  
09 as they may have on Highway 12. As a result, the  
10 environmental documentation is silent on any future  
11 improvements and their relationship to the development of a  
12 habitat plan and implementation of the Delta Wetlands  
13 Project on Bouldin Island. In particular, it does not  
14 address the issue of creation of sensitive wildlife habitat  
15 immediately adjacent to the highway on both sides of that  
16 highway.

17 We would note that in the State Water Resources Control  
18 Board Exhibit Number 2, which is a Draft Environmental  
19 Impact Report, Volume II appendices. When you look at  
20 Appendix G-3, the appendix that addressed the Habitat Plan,  
21 there is specific, on Page 7, specific notation in design  
22 criteria for the Habitat Plan, consideration of Highway 12  
23 should be given. And, in fact, there is a concern  
24 identified there with how the creation of sensitive habitat  
25 would relate to Highway 12 and that needs to be considered

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01 in the design criteria. We are indicating in our testimony  
02 here that we believe that wasn't fulfilled.

03 I will ask Vicky Alvarez is she could continue with  
04 direct testimony.

05 MS. ALVAREZ: Thank you very much.

06 I was asked to testify on three issues. That includes  
07 the effect of the Habitat Management Plan on Route 12 as  
08 well as deficiencies that we have identified in the draft  
09 environmental document, as well as the effects of the HMP if  
10 constructed on Caltrans resources internally.

11 To start off with, some of the things that we have  
12 identified with the HMP is, as you well know, when habitat  
13 is created as mitigation, it is expected that it would  
14 remain in place in perpetuity, and that such habitat that is  
15 created or restored in an area is often not immediately  
16 productive and often requires three to five or ten years and  
17 upwards, depending on the type of habitat to become  
18 established and productive for wildlife use.

19 Caltrans, as Dana has mentioned, has identified their  
20 project for widening would occur on Route 12 at Bouldin  
21 Island within a potential five- to twenty-year horizon,  
22 starting with minor projects for widening at specific  
23 locations to the ultimate widening throughout the distance  
24 of the island.

25 With that horizon in mind, Caltrans is concerned that  
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01 once the project comes on line requiring the widening, the  
02 acquisition of the 100-foot strip south of the highway and  
03 actually initiating construction, that that is going to  
04 involve the removal of habitat lands that would be created  
05 within that hundred-foot strip south of the highway. It is  
06 Caltrans' position that if this would not be a prudent use  
07 of expenditures of public money for Delta Wetlands and  
08 overseen by Fish and Game and other resource agencies, that  
09 this habitat be in place in a hundred feet strip only to be  
10 planning in place for its future removal.

11 As you know, the overseeing and maintenance, long-term  
12 maintenance, as well as installation cost for habitat  
13 mitigation land is quite expensive; and it would also  
14 require incurring the cost of Caltrans once that habitat is  
15 removed to mitigate for that.

16 As it was identified in Chapter 3E of the DEIS, the  
17 presence of Route 12 would have an adverse effect on  
18 adjacent Habitat Management Plans. And we would like to add  
19 to that discussion at that point in that the presence of  
20 Route 12 is going to have an adverse effect by increase all  
21 points for contaminants from the roadway, potential increase  
22 disturbance from human presence; just the presence of these  
23 lands and the wildlife that is going to be there is going to  
24 peek the interest of the traveling public, potentially  
25 causing them to pull for viewing, et cetera.

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01 And that oftentimes adjacent to highways, we found that  
02 deposition of material, people throwing things out of the  
03 window, and other energy put into areas adjacent to highways  
04 often attract wildlife in that area, and this would increase  
05 and be a detriment to the wildlife using the area by  
06 increased vehicle strikes as well as disturbance.

07 Another issue I would like to address relative the

08 Habitat Management Plan is the potential increase for safety  
09 problems associated with that. Tall vegetation is planting  
10 of, for example, the woody riparian vegetation that is  
11 planned for adjacent to the roadway, could result in reduced  
12 visibility, depending on the locations for roadways that  
13 have been fenced by Delta Wetlands for access to marinas.  
14 As I mentioned, traveling public, pulling off for additional  
15 viewing of wildlife, could impose some safety issues  
16 associated with people pulling on and off the roadway, and  
17 as I mentioned, increase review for wildlife strikes.

18 HEARING OFFICER STUBCHAER: Two minutes.

19 MS. ALVAREZ: I would like to outline next what  
20 Caltrans views as some of the efforts that would be incurred  
21 if this Habitat Management Plan proceeds as designed and is  
22 put in place in the hundred-foot strip. This is something  
23 that I am sure everyone in the room is well aware of, the  
24 efforts it takes in doing biological studies and developing  
25 habitat mitigation plans.

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01 When this road would be widened, and if this habitat  
02 mitigation is in place, it is going to require biological  
03 surveys, preliminary surveys to determine the extent of  
04 jurisdictional wetlands, the presence of endangered species  
05 and endangered species' habitat, as well as the evaluation  
06 of the functional values of those lands. Subsequent to  
07 that, environmental documentation will need to be prepared.  
08 In Caltrans' process, that includes the development of an  
09 natural environment study, which is the technical  
10 documentations, that feeds to the draft environmental impact  
11 statement, and subsequent public hearings and securing the  
12 final environmental documents.

13 Then there is the permitting issue associated with any  
14 impacts that would be incurred to habitat lands, including  
15 department acquiring permits for one water quality  
16 certification, working with California Department of Fish  
17 and Game for stream alteration agreement, and in Section 7,  
18 consultations need to take place with the Fish and Wildlife  
19 Service, depending on the presence of endangered species.

20 Subsequent to that and during that process, as you well  
21 know, is the planning for developing habitat, suitable  
22 habitat mitigation is extensive. And this is something that  
23 -- this is another additional cost that would be incurred by  
24 the agency if, in fact, these habitat lands were to be  
25 removed.

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01 MR. COWELL: Mr. Stubacker, if I could add maybe four  
02 sentences here just to summarize our testimony.

03 HEARING OFFICER STUBCHAER: Yes.

04 MR. COWELL: In summary, we were asking the Board to  
05 look at and address the Environmental Impact Report and what  
06 we believe to be some corrections that are necessary so  
07 there is a full and accurate understanding of how this  
08 project interacts with Highway 12; that we are interested in  
09 entering into a maintenance agreement with Delta Wetlands  
10 that would spell out maintenance responsibilities for their  
11 facilities and for Caltrans in the area just adjacent to the  
12 highway; that we believe that there should be a setback of

13 the levee and the ditch that is being proposed as a part of  
14 the project, move it outside of the 100-foot area that we  
15 have been discussing for potential purchase; and that fourth  
16 we believe that we have put on the table a way to acquire  
17 that 100-foot strip and see that it would continue to be in  
18 farmland as an option. We believe there are other options  
19 that may be available to them.

20 We are flexible and we would like to find a way to have  
21 our issues resolved, where there is a good comfort level  
22 with Delta Wetlands and the Water Resources Board. We  
23 believe that can be done.

24 Thank you for your time this afternoon.

25 HEARING OFFICER STUBCHAER: Thank you, Mr. Cowell.

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01 And your panel is ready for cross-examination now?

02 MR. COWELL: Yes.

03 HEARING OFFICER STUBCHAER: Could I have a show of  
04 hands of people who intend to cross-examine Fish and Game  
05 again?

06 Fish and Game, sitting behind there. Okay. You want  
07 to get a chair, Mr. Cowell, so you can sit down?

08 Delta Wetlands.

09 ---oOo---

10 CROSS-EXAMINATION OF DEPARTMENT OF TRANSPORTATION

11 BY DELTA WETLANDS PROPERTIES

12 BY MS. BRENNER

13 MS. BRENNER: I would like to renew Delta Wetlands  
14 objection to the Board hearing the Caltrans' position in  
15 this particular hearing. We feel the issues brought up by  
16 Caltrans are beyond the jurisdiction of the Board. So I  
17 would like renew that objection, first off.

18 Secondly, I just have one cross-examination question.  
19 I want to clarify Caltrans' position in this regard.

20 It is my understanding that, correct, that it is your  
21 testimony that you will compensate for any easement rights  
22 that are granted for this right-of-way to Delta Wetlands?

23 MR. COWELL: What we are attempting to do, and we  
24 cannot -- we cannot tell you with certainty that this can be  
25 done, but the partaking is for the Department of

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01 Transportation to purchase that 100-foot strip in fee title,  
02 such that we would then be the owner of that property. And  
03 then further, as a part of that transaction we would enter  
04 into further agreement with Delta Wetlands with compensation  
05 as appropriately negotiated, that both sides would agree,  
06 such that Delta Wetlands would continue to farm that  
07 100-foot strip for a given period of time, that we would  
08 have to enter into an agreement.

09 MS. BRENNER: Thank you.

10 HEARING OFFICER STUBCHAER: Your objection is still  
11 noted.

12 MS. BRENNER: Thank you.

13 HEARING OFFICER STUBCHAER: Mr. Moss.

14 ---oOo---

15 CROSS-EXAMINATION OF DEPARTMENT OF TRANSPORTATION

16 BY PACIFIC GAS & ELECTRIC

17 BY MR. MOSS

18 MR. MOSS: For the record, Richard Moss for PG&E.  
19 Just a few questions. Does Caltrans have a policy that  
20 would require Delta Wetlands to fund the cost of any  
21 mitigation, and I use that word not strictly in an  
22 environmental sense, but including maintenance or other  
23 impacts, that Caltrans must institute, basically, for  
24 Highway 12 caused by the Delta Wetlands Project, whatever  
25 that would be? Do you have a policy that would require them

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01 to pay the cost of that?

02 MR. COWELL: Sir, we are -- if I can try to answer your  
03 question. We are interacting with Department of Water  
04 Resources as lead agency, lead public agency for this  
05 project, and our role in this discussion for the Delta  
06 Wetlands Project is as a responsible agency, one that is  
07 responsible as owner/operator of the state highway system.  
08 So our ability, I guess, to ensure that there is appropriate  
09 mitigation, ensure that our issues are effectively addressed  
10 is through the Department of Water Resources.

11 MS. MOSS: I am at a bit of a loss here. This project  
12 just -- I'll make a statement and if you agree or not. My  
13 understanding is that there are two lead agencies, this  
14 Board, Water Resources Control Board and the Army Corps of  
15 Engineers.

16 Is that not correct, or is there a separate project in  
17 which the Department of Water Resources is the lead agency?

18 MR. COWELL: Sir, I stand corrected. And your  
19 observation, your statement that there is a federal lead  
20 agency as well.

21 MS. LEIDIGH: Just for clarification, this agency is  
22 the State Water Resources Control Board and there is a  
23 different agency which is the Department of Water  
24 Resources. So, I assume you were talking about the State  
25 Water Board, not Department of Water Resources when you were

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01 talking about being a responsible agency; is that correct?

02 MR. COWELL: Yes.

03 MS. LEIDIGH: Thank you.

04 MR. MOSS: Just as an example, if Delta Wetlands built  
05 a road leading up to the highway for their purposes, and  
06 you, obviously, had to modify the highway to accommodate  
07 that intersection, is that something that they would pay or  
08 you or the state would pay for that?

09 MR. COWELL: Normally, that would be something the  
10 project applicant would pay for when they request an  
11 approachment permit from us to make a connection or make  
12 improvement in an existing road.

13 MR. MOSS: Any such agreements, I gather, have not  
14 been negotiated at this point?

15 MR. COWELL: Not at this point.

16 MR. MOSS: My last question: Just in general, has  
17 Caltrans considered the potential for any Endangered Species  
18 Act, either state or federal, impacts that may arise from  
19 the placement of the proposed habitat next to the highway?

20 MS. ALVAREZ: Restate that.

21 MR. MOSS: Your statement speaks to your concerns for  
22 moving this habitat, but have you considered the potential

23 that is the habitat is created next to the highway listed  
24 endangered species may occupy that space and may be directly  
25 impacted by the highway in what could be an apparent

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01 violation of the state or federal Endangered Species Act?

02 MR. COWELL: I don't know if we have specifically  
03 addressed that issue.

04 MS. MOSS: Thank you.

05 HEARING OFFICER STUBCHAER: Ms. Murray.

06 ---oOo---

07 CROSS-EXAMINATION OF DEPARTMENT OF TRANSPORTATION

08 BY DEPARTMENT OF FISH AND GAME

09 BY MS. MURRAY

10 MS. MURRAY: I just have one short question for you,  
11 Mr. Cowell.

12 You testified that the Delta Wetlands Project will  
13 result in a level of service rating of F for Highway 12  
14 across Bouldin Island. You also stated new roadway access  
15 to internal roadways could contribute to operational  
16 problems.

17 My question is just, what mitigation measures do you  
18 recommend to reduce these operational problems?

19 MR. COWELL: First, maybe a point of clarification of  
20 what you said. What I was indicating was that the Delta  
21 Wetlands Project would be part of cumulative, total traffic,  
22 not just the project itself, but total traffic that is  
23 expected to be using Highway 12 that would lead to a need  
24 for future improvements there.

25  
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01 indicating is that a course of action we are proposing at  
02 this point, in terms of being able to work with Delta  
03 Wetlands towards acquiring and reaching an understanding on  
04 that 100 foot strip to the south, would be part of the  
05 agreement that we would have with them to be able to reach  
06 an understanding on our water rights protest.

07 In regards to the intersection improvements that would  
08 occur in the future, we do not have an agreement with them  
09 at this point, nor do we know precisely where they would be  
10 located. At any time in the future if Delta Wetlands were  
11 to come forward and request a connection or improvement on  
12 an existing connection to Highway 12, we would then have to  
13 look at that as an individual project, including separate  
14 environmental documentation and separate encroachment  
15 permit, which would have to be issued by the department.

16 MS. MURRAY: As Mr. Moss clarified on this new  
17 connection, Delta Wetlands would be responsible for paying  
18 for any of the costs?

19 MR. COWELL: That is normally how we have done it for  
20 virtually all project applicants for encroachment permit to  
21 the state highway system.

22 MS. MURRAY: No further questions.

23 HEARING OFFICER STUBCHAER: Mr. Margiotta.

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01 CROSS-EXAMINATION OF DEPARTMENT OF TRANSPORTATION

02 BY MR. MARGIOTTA

03 MR. MARGIOTTA: Two couple quick questions. When you  
04 stated that there is a higher density of accidents that  
05 occur on that highway, don't they directly result from the  
06 bridges that move and cause traffic to stop?

07 MR. COWELL: Sir, I don't know the -- I haven't looked  
08 at the details of the accidents as they relate to the  
09 bridges. But my testimony was that we do have a somewhat  
10 above average fatality rate out there in comparison to the  
11 roads that have similar characteristics to Highway 12 in  
12 other areas of the state. But that the total accident, the  
13 accident fatality, or the injury fatality rate is about at  
14 the statewide average, and the total number of accidents  
15 that occur on that area of Highway 12 are about the same as  
16 the statewide average.

17 MR. MARGIOTTA: Would you agree that the traffic has to  
18 stop on that highway when the bridges are moving?

19 MR. COWELL: Sir, I would agree there are movable  
20 bridges at either end of Bouldin Island, but I could not  
21 indicate to you that that is the reason why the accident  
22 rates are as they are.

23 MR. MARGIOTTA: The question I have for the biologist  
24 is, if a corridor -- the map, I believe, that was up that  
25 showed the highway, I think, indicated that Highway 12 along  
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01 Bouldin Island is a pretty straight corridor through the  
02 island; is it not?

03 MS. ALVAREZ: There is a small knee curve that is not  
04 substantial.

05 MR. MARGIOTTA: At west end. If there was a corridor  
06 shrubbery ring on either side of the highway that grew to a  
07 height that formed a shield or screen to the habitat project  
08 that was occurring, would that not reduce the amount of  
09 rubbernecking of the wildlife activities that were  
10 occurring, and in addition to that, wouldn't that also  
11 provide some protection to the wildlife from the  
12 disturbance that the highway creates?

13 MS. ALVAREZ: Yes, it would. However, again, that  
14 habitat, depending on where that lies within the proximity  
15 to the roadway and the new proposed right-of-way, for the  
16 time it takes for that to get established, it may be needed  
17 to be removed by the highway widening later. Yes, it would  
18 provide a visual buffer for highway travelers.

19 MR. MARGIOTTA: Wouldn't bamboo, I know bamboo is  
20 evasive, but it also is fast growing and I don't believe, or  
21 I will ask you, are there any endangered species associated  
22 with bamboo that would nest or use a bamboo cluster along  
23 the highway?

24 MS. ALVAREZ: Not that I am aware of.

25 MR. MARGIOTTA: I know bamboo is a very evasive plant.  
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01 MS. ALVAREZ: Yes, it is. It is usually not  
02 recommended for mitigation planning.

03 HEARING OFFICER STUBCHAER: Did you say evasive or  
04 invasive?

05 MR. MARGIOTTA: Both.

06 Is there another type of planting that you could

07 recommend that would not create a problem for tree nesters  
08 or endangered species that you would use that area?

09 MS. ALVAREZ: I would have to do more research on  
10 species that we're talking about that utilize that area.

11 MR. MARGIOTTA: So, would Caltrans recommend a barrier,  
12 visual barrier, within the hundred-foot right-of-way?

13 MR. COWELL: Within our existing 100-foot right-of-way?

14 MR. MARGIOTTA: No. The hundred-foot right-of-way that  
15 you are proposing to acquire.

16 MR. COWELL: Sir, I don't believe that would be  
17 something that we would propose. I would also reference  
18 anything that we would put out there that may grow and be of  
19 such a height that it would impair the sight distance -- it  
20 would impair the sight distance of approaching traffic.  
21 Cars able to see each other as they approach would be of  
22 concern to us in terms of limiting the passing opportunities  
23 out there, putting us in a position where we may have to  
24 look at barrier striping the highway so no passing is  
25 allowed.

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01 And then, secondly, we have a concern if that sight  
02 distance was impaired such that it may create a potential  
03 safety concern. So we, particularly, would have an issue  
04 there with anything that would affect that sight distance.

05 MR. MARGIOTTA: That would be probably a problem at the  
06 western end where that bend occurs?

07 MR. COWELL: Not knowing exactly how that would work,  
08 I would have to indicate that we potentially would have  
09 concerns across all of Bouldin Island.

10 MR. MARGIOTTA: Thank you.

11 HEARING OFFICER STUBCHAER: Anyone else, Caltrans,  
12 besides staff?

13 Staff, any questions?

14 Mr. Canada.

15 ---oOo---

16 CROSS-EXAMINATION OF DEPARTMENT OF TRANSPORTATION  
17 BY STAFF

18 MR. CANADAY: This is for Mr. Cowell.

19 Mr. Cowell, are you aware of any requests made by  
20 Caltrans staff to evaluate the Habitat Management Plan and  
21 its ability to be moved a hundred foot inward to provide the  
22 particular easement for which you are requesting?

23 MR. COWELL: Yes. I believe that in a meeting, and I  
24 don't know if I have the date correct, but in late 1995 when  
25 we met -- Caltrans met with yourself and also

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01 representatives of the project applicants, that was one of  
02 the things that was going to be looked at.

03 MR. CANADAY: Let me pose a hypothetical. If, in fact,  
04 Delta Wetlands could meet its mitigation responsibility, its  
05 habitat requirement responsibility, and be able to move this  
06 Habitat Management Plan a hundred feet to the south and  
07 provide this hundred foot easement, then what remains at  
08 issue between Caltrans and Delta Wetlands is a fair  
09 compensation for that particular piece of ground; is that  
10 correct?

11 MR. COWELL: The fair compensation for that particular

12 ground as well as how that particular ground would be  
13 managed, such that it would continue to be farmed.

14 MR. CANADAY: That would be an agreement between you  
15 and Delta Wetlands on the compensation and the management  
16 between you and Caltrans, how they would manage that land in  
17 the future?

18 MR. COWELL: That is what we are working towards.

19 MR. CANADAY: Thank you, that is all I have.

20 MR. COWELL: I am sorry, there is one other item that  
21 we continue to have out there and that is reaching agreement  
22 on a maintenance agreement in regards to the facilities that  
23 are directly Delta Wetlands facilities, particularly the  
24 ditch, the levees, how that the ditches are pumped, how the  
25 ditches are maintained. The maintenance agreement is the  
0163 other condition that we would continue to --

01 MR. CANADAY: That relates itself not to the Habitat  
02 Management Plan directly, but to the maintenance of any land  
03 management to the safety of the highway; is that correct?

04 MR. COWELL: To the safety, the maintenance and  
05 continued integrity of the highway system.

06 MR. CANADAY: Thank you.

07 HEARING OFFICER STUBCHAER: Mr. Sutton?

08 Anyone else?

09 Ms. Leidigh.

10 MS. LEIDIGH: I have some clarification questions with  
11 regard to some of the exhibits, having taken a look at  
12 them.

13 In appears to me that you don't have all the witnesses  
14 for whom you provided statements of qualifications, and that  
15 raises the question whether you intend to offer the  
16 statement of qualifications for witnesses who are not here.

17 Could you identify which ones you were offering?

18 MR. COWELL: If I understand what you are asking, I  
19 believe -- perhaps do it this way. I believe that we have  
20 provided statements of qualifications for myself, Victoria  
21 Alvarez, for Mr. Adams, Mr. Rassmussen, and Mr. Franzen. We  
22 have not called as witnesses today, nor do we intend, to Mr.  
23 Mendoza, Mr. Sangy, or Mr. Steel. So the area that I think,  
24 as you have pointed out earlier, we are missing is Mr.  
25

0164 Thelen.

01 MS. LEIDIGH: You have not presented these witnesses,  
02 so you are not going to offer in evidence Exhibit 8 for Mr.  
03 Steel, 12 for Mr. Mendoza, or 14 for Mr. Sangy; is that  
04 correct?

05 MR. COWELL: In terms of --

06 MS. LEIDIGH: They are not witnesses here?

07 MR. COWELL: They are not witnesses here, today.

08 MS. LEIDIGH: I am trying to clarify that. And then  
09 for the witnesses who are here, would each of you state  
10 whether the qualifications that you submitted are your true  
11 and correct statements of qualifications so that we get that  
12 on the record or since you are offering as evidence as  
13 experts?  
14

15 HEARING OFFICER STUBCHAER: Mr. Cowell?

16 MR. COWELL: Yes.

17 HEARING OFFICER STUBCHAER: Ms. Alvarez?  
18 MS. ALVAREZ: Yes.  
19 HEARING OFFICER STUBCHAER: Mr. Rassmussen?  
20 MR. RASSMUSSEN: Yes.  
21 HEARING OFFICER STUBCHAER: Mr. Franzen?  
22 MR. FRANZEN: Yes.  
23 HEARING OFFICER STUBCHAER: Mr. Adams?  
24 MR. ADAMS: Yes.  
25 HEARING OFFICER STUBCHAER: Board Members have no  
0165 questions.  
02 Do you have any redirect testimony, Mr. Cowell? Do you  
03 wish to offer any redirect testimony?  
04 MR. FRANZEN: Just one brief comment. The lady was  
05 asking about who would be paying for the road approaches` out  
06 there. The existing road approaches would be restored as  
07 part of our right-of-way transaction with -- at no expense  
08 to Delta Wetlands.  
09 HEARING OFFICER STUBCHAER: Thank you for that  
10 clarification.  
11 Anything else?  
12 MR. COWELL: That's all.  
13 HEARING OFFICER STUBCHAER: Any recross on that  
14 statement?  
15 Seeing none, do you wish to offer the exhibits that  
16 were previously discussed; that is 1, 2, 3, 4, 5, 6, 7, 9,  
17 10, 11, 13, and 16 into evidence?  
18 MR. COWELL: We do.  
19 HEARING OFFICER STUBCHAER: Are there any objections?  
20 Seeing none, they are accepted into evidence.  
21 Thank you for your participation today.  
22 MR. COWELL: Thank you, again, for allowing us to  
23 participate.  
24 HEARING OFFICER STUBCHAER: The reporter will change  
25 paper and then Fish and Game panel can resume.  
0166  
01 (Reporter changes paper.``)  
02 HEARING OFFICER STUBCHAER: Back on the record.  
03 MS. MURRAY: Mr. Nelson and I talked over the lunch  
04 break about ways to make this go faster. One thing we are  
05 going to do now, we have made 13 copies for the Board and  
06 more for the audience. In preparation for  
07 cross-examination, we created a document called DFG Method  
08 for Calculating Winter-Run Salmon Entrainment Index; and it  
09 lists out step-by-step. We are going to pass that around  
10 here and to the Board.  
11 And I also, just first want to clarify, that the  
12 Department has not inappropriately manipulated data, nor  
13 have we created new data. We simply took average annual  
14 data given to us by Jones & Stokes and put it into a monthly  
15 format. That was the crux of the first round of questions.  
16 And the idea is, again, a very simple one. We took average  
17 annual which fish do respond to and rechanged it into  
18 monthly. With that, we will give the staff --  
19 HEARING OFFICER STUBCHAER: Did this document exist  
20 previously or did you prepare it over the lunch hour?  
21 MS. MURRAY: We prepared it over the weekend in

22 preparation for cross-examination.

23 HEARING OFFICER STUBCHAER: You wanted to have an  
24 exhibit number for it?

25 MS. LEIDIGH: Yes, we need an exhibit number.

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01 Your next number maybe 14.

02 MS. MURRAY: 14 is not written on all of this, just one  
03 page.

04 MR. NELSON: Mr. Stubchaer, I would like to reserve the  
05 right to come back and ask some cross questions on this  
06 after we've had our experts take a look at it. I am not  
07 going to cross on this document right now because I haven't  
08 had a chance to look at it. I would like to have the chance  
09 at some point to ask questions, if some arise after  
10 reviewing this document.

11 MS. MURRAY: Again, the only purpose we have for  
12 presenting it is merely to try to facilitate this. This is  
13 something we prepared to help us on our cross-examination,  
14 and it's not really crucial to us that it goes into  
15 evidence. We're trying to help.

16 HEARING OFFICER STUBCHAER: Would this document help  
17 answer some of the questions about how the calculations were  
18 performed that were discussed before lunch?

19 MS. MURRAY: We are hoping.

20 HEARING OFFICER STUBCHAER: This document it is not  
21 dated. You have an exhibit number. Is the date important?

22 MS. MURRAY: Not to us.

23 HEARING OFFICER STUBCHAER: It was over this weekend?

24 MR. STARR: Friday.

25 MS. LEIDIGH: We will put an introduced date on the

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01 official copy.

02 HEARING OFFICER STUBCHAER: I think that it is helpful  
03 for the examiner to know when it was created, a recent  
04 document, not something done way back when. So if there is  
05 no objection, we can just write Friday's date on here, which  
06 was the 25th.

07 MR. NOME LLINI: What was that date?

08 HEARING OFFICER STUBCHAER: July 25th, this year.

09 MR. NOME LLINI: Thank you.

10 HEARING OFFICER STUBCHAER: I think it is a matter of  
11 position, rather of being than not on.

12 ---oOo---

13 CONTINUED CROSS-EXAMINATION BY MR. NELSON

14 MR. NELSON: Are we ready?

15 I will ask this question of Mr. Wernette. If he  
16 doesn't know the answer, we can go to Mr. Starr.

17 What values did you use to determine the proportion of  
18 winter-run chinook salmon in March distributed over the  
19 four boxes of the diversion index?

20 MR. WERNETTE: Is your question, Joe, what percentage  
21 did we use in terms of the presence in the Delta or  
22 percentage among the boxes?

23 MR. NELSON: Among the boxes.

24 MR. WERNETTE: We made no assumptions from the  
25 standpoint of the distribution of salmon within these

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01 boxes. The distribution data we used are the percent of  
02 annual production of winter-run juveniles that are present  
03 in the Delta by month, so those are the data we used when  
04 you're talk about distributions. It is not a geographic  
05 distribution.

06 MR. NELSON: So, you didn't make a distinction in the  
07 sense that present Delta smelt capacity -- salmon presence  
08 in the Delta between those four boxes, they all had the  
09 same distribution?

10 MR. WERNETTE: In terms of the calculations we made, we  
11 didn't believe we had sufficient data to draw any  
12 conclusions about what percent of the salmon were in the  
13 North Delta or Lower San Joaquin to evaluate it.

14 MR. NELSON: Just a quick question.

15 Which of those boxes models cross Delta flow channel?

16 MR. WERNETTE: The Mokelumne box is the box that is  
17 used in developing cross Delta flow. As I understand the  
18 cross Delta flow parameter, it is a specific measurement of  
19 the particles after ten days. After ejection, they evaluate  
20 where they are in terms of diversions, after ten days. But  
21 it is the projections of the Mokelumne box that provides  
22 that.

23 MR. NELSON: Is the Delta Cross Channel closed in March?

24 MR. WERNETTE: It is my understanding that it is. How  
25 the model itself, Warren's model, what assumptions he made  
0170  
01 about the closing or opening of that cross channel, I can't  
02 tell you.

03 MR. NELSON: Thank you.

04 In referring to the M Salmon Model that is identified  
05 in the DFG 14, is this a model that Fish and Game has used  
06 before for other project analyses?

07 MR. WERNETTE: In my -- to my knowledge, this is a  
08 model and technique unique to this project. It may have  
09 been used by Jones & Stokes in other efforts that they are  
10 involved with, but -- for instance, the CVPIA had an EIR,  
11 but I haven't had any personal knowledge of that.

12 MR. NELSON: Is it your understanding that to the  
13 extent that you used this, the four boxes, from Mr. Shaul's  
14 DeltaMOVE output, has that approach been used before in  
15 analyzing projects?

16 MR. WERNETTE: Not to my knowledge.

17 MR. NELSON: If I can step back a second with respect  
18 to the proportional occurrence. Question, I do have one  
19 more. Did you apply the same monthly proportional  
20 occurrence to each box of the entrainment model?

21 MR. WERNETTE: Yes, we did.

22 MR. NELSON: In your Biological Opinion, did you  
23 describe or provide any discussion of the diversion index  
24 modeling work or the creation of the diversion index into  
25 the Biological Opinion?

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01 MR. WERNETTE: I think in our Biological Opinion we do  
02 have a section on methods that were used; and our discussion  
03 references fairly general as to referencing the DeltaMOVE  
04 Model, for instance. And so, we definitely in our  
05 Biological Opinion, for instance, have not described to the

06 level of detail in this Exhibit 14, how we arrived at a way  
07 of evaluating the project for winter-run, for instance, that  
08 was more satisfactory to our Department. And this is how  
09 Warren has evaluated these data and provided it to us. We  
10 have not -- we do not provide that level of detail.

11 MR. NELSON: Did you ever inform the State Water  
12 Resources Control Board that you were going to use the  
13 winter-run entrainment index in analyzing the Delta Wetlands  
14 Project instead of Warren Shaul's salmon mortality model?

15 MR. WERNETTE: I don't remember specifically notifying  
16 them of this in the development of our ARMP, or the Acquired  
17 Resources Management Plan. And in the process that we went  
18 through in evaluating different alternatives, the display of  
19 this data or these data in this form was one that was  
20 available to the project proponent, the Board staff, and  
21 other participants in consultation. To my knowledge, other  
22 than saying generally this is going to be one of the tools  
23 we are going to look at, and actually display that intent by  
24 the actions we took in looking at different alternatives.  
25 We never formally told the Board this is the specific tool

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01 we are going to use.

02 MR. NELSON: Did you rely on the winter-run entrainment  
03 index for making your conclusions in the Biological Opinion?

04 MR. WERNETTE: We used it as one of the pieces of  
05 information. We used that along with quite a few other  
06 pieces of information, including, just generally, looking at  
07 the operational data in terms of how Delta outflow might be  
08 affected, what kind of rate of diversions might occur  
09 relative to the existing conditions. So, it was one of a  
10 number of tools we used.

11 MR. NELSON: Did you use the winter-run entrainment  
12 index as a substitute for Mr. Shaul's mortality model?

13 MR. WERNETTE: I think that is a fair statement. When  
14 we were evaluating how winter-run may be affected by  
15 hydraulic influences, we depended more heavily on that  
16 entrainment index as opposed to the data output from the  
17 mortality model. But we still took a look at that  
18 information as it was presented to us.

19 MR. NELSON: In Mr. Shaul's model, he modeled 70 years  
20 of effects from the Delta Wetlands Project and the data you  
21 were provided was also a 70-year data set. Figure 12, which  
22 we had up on the overhead before had only ten years. Did  
23 you only analyze ten years or did you analyze 70?

24 MR. WERNETTE: The figure, the bar graph that Joe is  
25 talking about did capture the -- we just set the model to

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01 capture and pull out the top ten years for winter-run and  
02 Delta smelt in those months of February -- in this case, the  
03 example we gave in that exhibit was for the month of March.

04 We inspected the other 60 years of data, but did not  
05 present those in a bar graph in our Biological Opinion.

06 HEARING OFFICER STUBCHAER: Question. You mentioned  
07 that before. I wasn't clear on what you meant by the top  
08 ten. The top, highest in terms of impact?

09 MR. WERNETTE: Yes.

10 MR. NELSON: Actually, could I ask another question:

11 Upon what did you base the impact, assessment that it was  
12 the highest impact? Was it the value that was created by  
13 the index or was it the percentage change between the base  
14 condition and the model run?

15 MR. WERNETTE: We used the actual value or index to  
16 sort these things by the top one through ten. The percent  
17 change for some months is as much as 350 percent above  
18 baseline.

19 In those cases, the reason for that high percentage is  
20 because, without the project, state and federal water  
21 projects, for instance, in a month -- I don't know. I don't  
22 have a specific year. In the modeling runs it is indicated  
23 that there are very little diversions occur under the base  
24 condition. So, Delta Wetlands comes along and increases  
25 entrainment index above that baseline, and that baseline is  
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01 already very low, came up with a figure as high as 335  
02 percent. So we thought that would be an exorbitant way of  
03 displaying effects, even though we are looking at things  
04 above baseline. We thought that that would probably be an  
05 unfair way of describing how Delta Wetlands affects  
06 conditions in the Delta. It was just that index value.

07 MR. NELSON: Can you find Table 5 from Deborah McKee's  
08 testimony?

09 Ms. McKee, did you prepare this table?

10 MS. McKEE: Yes, I did.

11 MR. NELSON: Can you explain to the Board, looking at  
12 the March and you have a value of 641 percent, 641.37  
13 percent, can you explain how you derived that figure?

14 MS. McKEE: This is the same output that we have been  
15 describing. And what I did is, I took the monthly summaries  
16 of the 70-year period of record of operations and I -- it  
17 was all in the output. So I had base conditions. I had the  
18 actual change between operations under the federal opinions  
19 and the state opinions, and I looked at the percentage of  
20 the change.

21 MR. NELSON: Can you tell me what the values were that  
22 created the 641 percent change?

23 MS. McKEE: That was the maximum percent change that  
24 occurred in a given month of operations of Marches in a  
25 70-year period of record.

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01 MR. NELSON: Can you identify that actual value from  
02 the data?

03 MS. McKEE: I don't have it here, but I could if I had  
04 my data set.

05 MR. NELSON: I am going to provide to Ms. McKee the  
06 data set that is from Warren Shauls' JSA DeltaMOVE output  
07 and Lower Sacramento River entrainment index, and --

08 MS. MURRAY: Is this already in the record?

09 MR. NELSON: No, it is not. I'm asking for  
10 cross-examination purposes since she doesn't have the data  
11 available. And I can provide it to Ms. McKee.

12 MS. McKEE: That is not what I used to --

13 MR. NELSON: I am going to provide it to her because I  
14 only have one copy.

15 MS. McKEE: That is just one box. Lower Sacramento

16 River entrainment index.  
17 MR. NELSON: Lower Sacramento River entrainment index,  
18 and it is for March.  
19 MR. NOMESELLINI: I think we should identify that, so we  
20 know what they are referring to in the transcript.  
21 HEARING OFFICER STUBCHAER: Yes.  
22 MR. NELSON: What we are referring to is that table,  
23 data table from Warren Shaul's March 25th analysis, which is  
24 the output that was provided to Fish and Game. And it is  
25 titled Lower Sacramento River Entrainment Index, March. It  
0176  
01 has five columns. First one is no-project value. Second  
02 one is ESA value. Third one is percent change. Fourth one  
03 is CESA value. The fifth one is percent change for the CESA.  
04 HEARING OFFICER STUBCHAER: Are you going to ask the  
05 witness if she recognizes this table and if she used it in  
06 preparing the table, et cetera?  
07 MR. NELSON: Yes, I will.  
08 HEARING OFFICER STUBCHAER: Mr. Nomellini.  
09 MR. NOMESELLINI: I think we ought to mark that as an  
10 exhibit number of some type and then have copies of it, even  
11 if it is not introduced and just use it for  
12 cross-examination.  
13 MR. LEIDIGH: Mr. Nelson, is this anywhere in any of  
14 the exhibits?  
15 MR. NELSON: No, it is not. It is the data that was  
16 provided to Fish and Game by Mr. Shaul at the request, as a  
17 part of DW Exhibit 5. So it is the data that was used in  
18 calculating the analysis for DW-5.  
19 MS. LEIDIGH: Are you going to have copies made and  
20 offer this in evidence?  
21 MR. NELSON: I will be happy to offer it into evidence.  
22 I was expecting Fish and Game to have this data available,  
23 that they would be prepared for this on cross.  
24 HEARING OFFICER STUBCHAER: I think Mr. Nomellini has a  
25 point. Let's mark it for identification.  
0177  
01 Mr. Sutton.  
02 MR. NELSON: DW-36?  
03 MR. SUTTON: What I want to get clear on, is this  
04 particular data set included in DW-5?  
05 MR. NELSON: It is the data set that is DW-5.  
06 MR. SUTTON: DW-5 is labeled as Evaluation of CDFG  
07 Alternatives.  
08 MR. NELSON: Correct. Mr. Shaul provided the data that  
09 he used in calculating DW-5 to Fish and Game. What I just  
10 want handed to Ms. McKee is the data that was provided by  
11 Mr. Shaul to Fish and Game.  
12 MR. SUTTON: My question is, is this particular data  
13 set included in DW-5? It's not; is that correct.  
14 MR. NELSON: The data set is not; the data is what is  
15 actual -- it's what DW-5 was analyzed, the data was produced  
16 under these runs is how he wrote --  
17 HEARING OFFICER STUBCHAER: Summary?  
18 MR. NELSON: It is a summary.  
19 HEARING OFFICER STUBCHAER: Did we get an ID number?  
20 MR. SUTTON: This is DW-36.

21 MS. McKEE: I have never see the data in that  
22 particular format, and I got my data from Mr. Starr from  
23 the modeling efforts that we have previously described.  
24 Obviously, there is that one number there that corresponds.  
25 MR. NELSON: That one number that corresponds that you  
0178  
01 are referring to is 641 percent change, and the change --  
02 Could you please tell the Board what the values were  
03 from the change?  
04 MS. MURRAY: I object. She has just said that she did  
05 not get this data in the same format. So, what is the  
06 purpose of going on with something that she has not seen,  
07 nor has Jim, who she got this from, seen this in this format  
08 before?  
09 HEARING OFFICER STUBCHAER: She did say she recognized  
10 that number. Is it 641.52 in that summary, in that exhibit  
11 you just handed out, potential exhibit?  
12 MR. NELSON: 641.37 percent is in that data set, March  
13 Biological Opinion.  
14 MS. MURRAY: She's testified she did not receive the  
15 data in this format when she created her table. And she got  
16 her data from JSA.  
17 MR. NELSON: Can I ask Mr. Starr if he recognizes this  
18 data?  
19 MR. STARR: Not in this format.  
20 MR. NELSON: What is different?  
21 MR. STARR: Well, when I got it, it was in electronic  
22 format, and I have never seen data displayed this way from  
23 Warren Shaul.  
24 MR. NELSON: You've never seen the decimal data for  
25 this?  
0179  
01 MR. STARR: Correct.  
02 MR. NELSON: I will ask if it was in an electronic  
03 format, how did you come up with your index changes?  
04 MS. MURRAY: Are you asking Deborah how she came up  
05 with her table?  
06 MR. NELSON: I am asking whoever actually created this  
07 641 percent, how that came up.  
08 MS. MURRAY: Deborah, how did you come up with your  
09 table?  
10 MS. McKEE: I was given some summary output information  
11 from Mr. Jim Starr. It had some ranges in percentage  
12 increases. It had some of the base figures for base  
13 conditions, and then the changes under the Biological  
14 Opinion under CESA.  
15 MR. NELSON: Isn't it true that -- actually, I need to  
16 have the paper.  
17 Isn't it true that what is highlighted on that exhibit  
18 right there is a value, the base condition is, I believe --  
19 MS. MURRAY: I object. She has said that she has not  
20 seen the data before. So, now he is trying to read into the  
21 record something that is not what she used to create her  
22 table.  
23 If he's trying to authenticate this table, she's done  
24 that. If he is trying to introduce new evidence, which he  
25 is, I think he needs to wait until rebuttal to make his

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01 case.

02 HEARING OFFICER STUBCHAER: I view it as probing the  
03 background or basis for the table. And as far as the  
04 admissibility or reliance on that particular exhibit is  
05 concerned, perhaps you could ask, are the numbers the same  
06 and what is, without testifying that it is the data that was  
07 used. I don't know if that -- maybe the appropriate way to  
08 do that would be on rebuttal rather than asking these  
09 witnesses to do that.

10 MR. NELSON: Mr. Stubchaer, I would at least like to  
11 have the opportunity to cross them on the data that they  
12 have, if they are asserting that this is not the exact same  
13 format that they received from Jones & Stokes. I would  
14 appreciate receiving that electronic data, and I will come  
15 back and ask the same question.

16 HEARING OFFICER STUBCHAER: I think it is a fair  
17 request to do inquiry to the basis for the table, just  
18 getting in a form that can be testified to.

19 Ms. Leidigh, were you going to say something?

20 MS. LEIDIGH: I was going to suggest that maybe I could  
21 ask a few clarifying questions and maybe get to the bottom  
22 of this.

23 HEARING OFFICER STUBCHAER: All right.

24 MS. LEIDIGH: Ms. McKee, could you look at that piece  
25 of paper again? Now, what you said was you have not seen

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01 that data in that format; is that correct?

02 MS. McKEE: Yes, that is correct.

03 MS. LEIDIGH: Have you seen that data before in some  
04 other format?

05 MS. McKEE: I was given a very summarized set of  
06 information from the model runs from our Bay Delta division.  
07 It was not on a month-by-month breakdown such as this. But  
08 it had maximum and minimums and averages. And what we were  
09 looking at were, what was the base conditions, what were the  
10 range of changes, the maximum changes that could occur, and  
11 for the month of March, under the federal opinion, 642  
12 percent maximum change was provided to me.

13 This breaks it down to every single month in the  
14 history of the proposed project operations.

15 MS. LEIDIGH: You had some summary that you received  
16 from Mr. Starr.

17 Mr. Starr, have you seen this data before?

18 MR. STARR: I generated this data independent of what  
19 is being presented here at this time. I did not get this  
20 from Warren Shaul. I created the data separate, using  
21 Exhibit 14, the procedures we went through in that. That is  
22 how we were able to come up with these numbers, and that is  
23 the numbers that Ms. McKee has up on the table.

24 MS. LEIDIGH: That you gave Ms. McKee?

25 MR. STARR: Correct. To answer Joe's question, no, I

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01 never received information from Warren Shaul in this matter.  
02 I received the information that he used to create this, from  
03 the data that he used to create this and the model run, the  
04 M Salmon Model, used it to generate this number.

05 MS. LEIDIGH: Okay. I think that clarifies this.

06 MR. NELSON: The one question I would like to be able  
07 to have answered is: What the values were between the  
08 no-project condition and the federal Biological Opinion that  
09 created this 641 percent increase? If Fish and Game could  
10 bring and have those values available, that is all I am  
11 asking.

12 HEARING OFFICER STUBCHAER: It seems to me that from  
13 that piece of paper you could answer that question, if not  
14 say that is Mr. Shaul's value.

15 MR. NELSON: If they are willing to answer that  
16 question from that piece of paper, I am happy to hear the  
17 answer.

18 MR. STARR: I can answer that in that I don't know the  
19 numbers off the top of my head. I have the data back at the  
20 office. I am not sure of what time line we have to get it  
21 to them. It can be provided to them like we are going to  
22 provide some of other data that we used to create the March  
23 table.

24 HEARING OFFICER STUBCHAER: Mr. Nelson.

25 MR. NELSON: I would like to not only have it provided,  
0183

01 but actually prefer to cross Fish and Game on this matter,  
02 not simply have it provided it us without having the ability  
03 to cross on the data we have provided.

04 MR. WERNETTE: Joe, would you object if I added a  
05 couple quick thoughts on this issue?

06 MR. NELSON: Actually, I think we've taken up the  
07 Board's -- can we talk about it later? I am not sure if you  
08 are asking provided thoughts on this table or and the data  
09 output or if you are asking what your thoughts are.

10 MR. WERNETTE: Well, just what I have in mind, and I  
11 will keep it really brief. But as I mentioned a few minutes  
12 ago, that when you inspect the 70 years of data, there are  
13 times where the project's base condition, is -- there is a  
14 very, very low entrainment. Number of .01, for instance. I  
15 haven't looked at these data, but the existing state and  
16 federal water projects barely operated under those  
17 conditions.

18 When the model is performed with the project, even with  
19 a small increase in diversions associated with Delta  
20 Wetlands Project, you can imagine that if you had an  
21 increase, it could be a fivefold increase in diversions --  
22 excuse me, even with a fivefold increase in index, with a  
23 very small increase in diversions, because of the way  
24 Warren's model works and the way that the DeltaMOVE Model  
25 that Russ Brown put together works. So, these data and the

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01 tables that we -- the information provided to Ms. McKee  
02 worked, these present some fairly drastic changes that on  
03 average the project does not cause, when you look at it on  
04 an average 70-year basis or you look at the top ten months,  
05 like I suggested that we did. That is why we lined in the  
06 way I said earlier, because we didn't use the percent  
07 change. We would have had a number of years where minor  
08 project operations of 500 cfs or 200 cfs would have resulted  
09 in a 400 percent increase, and relative to base; and that is

10 a pretty big increase. When you look at it from the  
11 standpoint of, okay, what is the real world effect; it is  
12 not large.

13 HEARING OFFICER STUBCHAER: I can understand using the  
14 reason for the discussion because this looks pretty drastic  
15 when you look at the percentages. I am sure that is why he  
16 is inquiring into the background and the basis for this  
17 table.

18 MR. SUTTON: May I ask a clarifying question in that  
19 regard, Mr. Stubchaer?

20 HEARING OFFICER STUBCHAER: Yes.

21 MR. SUTTON: On the Table 5 that you have projected  
22 there, you have the base condition listed. Based on what  
23 you just said, Mr. Wernette, that base condition value that  
24 is shown there, is that an average base condition?

25 MR. WERNETTE: You know, I don't know the answer to

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01 that question. When we made this percent comparison,  
02 though, that was not the base comparison that we used.

03 MR. SUTTON: That is precisely my point. Is that, if  
04 the federal Biological Opinions as demonstrated there show a  
05 641 percent variation from the base condition, that is a  
06 huge increase in losses in the index, at least. I will say  
07 that much.

08 But if that is 641 percent increase not from the base  
09 condition average value, but from a particular base  
10 condition for a particular month of a particular year, as  
11 you just pointed out, that is a significant difference.

12 So, my question is: Is that base condition shown up  
13 there an average value for the 70 years? And I will ask it  
14 to anybody who can answer that.

15 MR. STARR: The number used up there was a  
16 corresponding, say since this is for the month of March, its  
17 corresponding base condition for that month, March, for the  
18 same year, so all it is is a monthly average for the month  
19 of March; that is what the base condition was. That is how  
20 the change over base was evaluated. One year. This is one  
21 month, one year. The worst, accordingly, if you go by this  
22 percentage, that is the worst case that you would have,  
23 based upon that one month of March out of the 70-year  
24 history.

25 HEARING OFFICER STUBCHAER: All values for the same

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01 line and then from the same year?

02 MS. McKEE: No.

03 HEARING OFFICER STUBCHAER: Every column, including the  
04 base is for the same year?

05 MR. WERNETTE: Can I mention one thing to clarify what  
06 Mr. Starr said. The base condition value that is in that  
07 column is the average base condition over 70 years.

08 HEARING OFFICER STUBCHAER: That was Mr. Sutton's  
09 question. The answer --

10 MR. WERNETTE: I want to make sure that Mr. Sutton  
11 knows that that is the average condition. So, for instance  
12 --

13 MR. SUTTON: Excuse me, that is not what Mr. Starr just  
14 testified to.

15 MR. WERNETTE: I understand.

16 MR. SUTTON: Pardon me if I am confused.

17 MR. WERNETTE: I think there is definitely a reason to  
18 be confused. In the case of the individual month  
19 comparisons, the base condition for this particular box in  
20 the Delta range from zero, in months where there are no  
21 operations under the base condition, to conditions that  
22 might have been close to 20 under years where there was  
23 substantial exports from state and federal water projects.  
24 So, when you look at the 70-year period, the average turns  
25 out to be a little over seven for the base condition, on  
0187 average.

02 In displaying the data in this table, I understand the  
03 confusion; I really do understand the point that when we did  
04 take a look at the actual worst case condition, we did look  
05 at that specific month. Those data are not displayed here  
06 in the example that I gave. I gave you a hypothetical  
07 example. You would expect that the base condition were  
08 very, very low, and that the increased impacts in that  
09 particular month was an increase under Delta Wetlands  
10 Project, but perhaps there was very little water available  
11 for increased diversions. In that case there would have  
12 been a small incremental increase, but compared to a very,  
13 very small base condition, would have resulted in a high  
14 percentage.

15 MR. SUTTON: Thank you.

16 MR. NELSON: I have one more question to follow up on  
17 what Mr. Stubchaer was asking. The values, the 641 percent,  
18 the 17.59, and 17.59, are they the same year?

19 MS. McKEE: I would doubt it, no. They are the  
20 maximum. The table states they are the maximum in any of  
21 the 70-year period of records. So if there are 29 Marches  
22 in which the project operates, then it was the maximum under  
23 each different operational plan.

24 MR. NELSON: I also notice that you look at the CESA  
25 Biological Opinion RPM column. For December, January, and  
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01 February the values for CESA are the same as the federal  
02 Biological Opinion. And then, if you look at March 1, when  
03 there is a difference of 641, exception of 17.59, than the  
04 17.59 shows up on DFG conservation measure.

05 Did you make independent analyses of CESA Biological  
06 Opinion measures and your conservation measures or how were  
07 those two columns --

08 MS. McKEE: When the Department was finalizing its  
09 Biological Opinion and we were given the model and runs and  
10 modeling output from Jones & Stokes, they analyzed the RPM  
11 and additional conservation measures together as one set and  
12 they were not factored out. They were not factored out as  
13 far as the two sets that you see here.

14 So we made some professional judgment to separate out  
15 what months the RPMs was affected and what months the  
16 conservation measures were affected. We would have  
17 preferred to have received two separate modeling runs that  
18 analyzed it on an incremental basis, but we weren't given  
19 that, so --

20 HEARING OFFICER STUBCHAER: Mr. Nelson, let's take our  
21 afternoon break; 12 minutes.

22 (Break taken.)

23 HEARING OFFICER STUBCHAER: Before you start examining  
24 on this, let's just have a discussion on all the bases for  
25 this table. The background for this table, can it be

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01 provided to the examiner so he can probe into where it comes  
02 from? When you read the title, partly, it says Comparison  
03 of No-Project Base Condition to Project Effects under  
04 Federal Biological Opinion and DFG Biological Opinion.

05 It discusses the worst case in percentage basis. It  
06 doesn't show the median; it doesn't show the average; it  
07 doesn't show lowest case. And so it doesn't give a -- I  
08 don't think it gives the Board the information as far as  
09 this one table is concerned to evaluate.

10 What can we do to develop this information in a timely  
11 manner so it can be analyzed?

12 MS. MURRAY: I do agree with you that there is a very  
13 limited purpose for this table, which is to present only a  
14 worst case scenario. That is why the table was created, to  
15 see what was the maximum and what could happen, and that is  
16 why these for March, for example, not every -- not from the  
17 same year because she was picking the worse case scenarios  
18 throughout the 70-year period. It is not average.

19 HEARING OFFICER STUBCHAER: As Mr. Wernette said, if  
20 you have a base case of a tenth, and you go to six-tenths,  
21 it is a 600-percent increase. So a person can't really get  
22 a good picture from this table. I think that the parties  
23 are entitled to a more complete picture.

24 MS. MURRAY: Again, I want to emphasize, that was not  
25 the purpose of this table.

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01 HEARING OFFICER STUBCHAER: The heading doesn't say it  
02 is the worst case, up in the upper heading, the top heading.  
03 Anyways, be that as it may, what can be done?

04 Ms. Leidigh, do you have any comments?

05 MS. LEIDIGH: I was wondering if Department of Fish and  
06 Game has the numbers, the actual numbers that underlie  
07 these percentage numbers' in other words, what were the  
08 actual numbers that compare with your base condition? You  
09 put them down as percentages, but it would be helpful if we  
10 had the true numbers that you were taking from.

11 HEARING OFFICER STUBCHAER: Also, a full data set.

12 MS. LEIDIGH: And also the full data set, as well. If  
13 Fish and Game has that already, back at their office or  
14 here, and could provide it tomorrow morning -- is that  
15 possible?

16 MR. NELSON: Mr. Stubchaer, could I ask, Mr. Starr  
17 mentioned they could possibly get it very quickly, that  
18 today from their Stockton office. If possible, we'd  
19 actually like that data E-mailed to us today or faxed if it  
20 could be printed out, so we have the evening to look it  
21 over.

22 HEARING OFFICER STUBCHAER: The E-mail option would  
23 save re-entering it all.

24 Mr. Starr, do you have Internet capabilities at your

25 office down there?

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01 MR. STARR: Yes, do I, sir.

02 MS. MURRAY: As we can see, we are here today.

03 HEARING OFFICER STUBCHAER: That leads to the next  
04 question. Is there anyone in the office that could be  
05 contacted by phone and see if they are capable of  
06 identifying the data set?

07 MR. STARR: No.

08 MS. MURRAY: This is the data set that you got from  
09 Jones & Stokes?

10 MR. STARR: It's derived from data received from Jones  
11 & Stokes, yes.

12 MS. MURRAY: It goes to one question I had about their  
13 DW-36, which is a monthly form that we never got from Jones  
14 & Stokes. In terms of dating exhibits, what is the date of  
15 that exhibit?

16 MR. NELSON: That was provided to us, I believe, on  
17 Wednesday of last week from Mr. Shaul.

18 MS. MURRAY: So if we have it in a monthly form and  
19 you have it in a monthly form --

20 MR. NELSON: The answer is, we don't have what Fish and  
21 Game did. We do not have the values and we have not been  
22 able to figure out how these figures are derived throughout,  
23 for this table, for Table 4 and for Figure 12 that we  
24 discussed earlier. We don't have -- we have no way to  
25 confirm and verify what Fish and Game has done, and that is

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01 what we -- what would be useful is if we can get, one, the  
02 electronic data Fish and Game received from Jones & Stokes  
03 and, two, whatever calculations Fish and Game did with the  
04 winter-run entrainment index, the Delta smelt entrainment  
05 index. Both of those and Figure, the two graphs in Figure  
06 12, and then the data that supports Table 4, Table 5, and  
07 also Table 4 from Ms. McKee's testimony.

08 And the other thing I would add, I was going to ask  
09 this anyway, we also have questions about, I don't want to  
10 go through these other percentages that we have questions  
11 about, we'd just prefer to see the data on it, which is the  
12 percentages that are cited on Pages 54 and 55 of the  
13 Biological Opinion, which are the stated percentage impact  
14 reductions in the Biological Opinion.

15 MS. MURRAY: We can answer that question now without  
16 having to belabor the point and give you additional data.

17 MR. NELSON: Do you have data that supports those four  
18 percentages?

19 MS. MURRAY: We have information as to where we got  
20 them.

21 MR. NELSON: Do you have the values?

22 MR. WERNETTE: Yes, we do.

23 MR. NELSON: In that case --

24 MR. WERNETTE: One quick question or quick statement.  
25 The data that supports the bar graphs, we can provide

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01 those to you on the kind of turnaround time that you are  
02 asking. The output. Like the exhibit that you just  
03 presented this afternoon for one of the boxes, is a little

04 bit more difficult to pull together, and I am not sure that  
05 we can provide that on the kind of turnaround that you  
06 suggested, Mr. Stubchaer.

07 This is where I am a little confused. When we were  
08 provided with the electronic format of the data that were  
09 reduced by Warren Shaul with Russ Brown's help, actually, I  
10 don't have any direct knowledge who else received those  
11 electronic format. We requested it and received it on  
12 several occasions, as we moved through different iterations.  
13 Whether those same electronic data were provided to Board  
14 staff or Delta Wetlands, I don't know the answer to that.

15 HEARING OFFICER STUBCHAER: I would like to ask a  
16 question. I believe I heard Mr. Starr say that the values  
17 in Table 5 were provided by him, the calculations he made  
18 based upon data received from Mr. Shaul; is that correct,  
19 Mr. Starr?

20 MR. STARR: Yes, sir.

21 HEARING OFFICER STUBCHAER: It seems to me that  
22 particular data supporting Table 5 would be -- his  
23 calculation data would be in there, that spreadsheet that  
24 you mentioned.

25 MR. WERNETTE: That's true.

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01 HEARING OFFICER STUBCHAER: So, then, as far as what  
02 other monthly data we have is concerned that Delta Wetlands  
03 has, I don't know how relevant that is to Table 5. It's  
04 the basis for it, but actually how you got to Table 5, I  
05 think, is one of the principal questions. Perhaps Mr.  
06 Nelson or staff want to comment on that.

07 MR. NELSON: We agree what we are looking for is  
08 simply the data that supports these numbers so we can  
09 verify, accurately verify, what has been done. With respect  
10 to Mr. Wernette, he was going to discuss the four  
11 percentages on Page 54 and 55, at the same time, I am not  
12 sure right now, given the time constraint, that I prefer  
13 that we would just be provided that information now, and we  
14 are able to look it over. And then, if we have cross  
15 questions, we can ask that cross rather than go through this  
16 right now. Let us have the opportunity to look at it,  
17 formulate cross, having seen the data. If it is necessary,  
18 maybe just resolve the issue, whatever questions we had on  
19 that issue, rather than going through that right now.

20 HEARING OFFICER STUBCHAER: Are you suggesting that we  
21 adjourn now and give Fish and Game personnel the  
22 opportunity to go back and E-mail you the data if they have  
23 it?

24 MR. NELSON: I would submit that I can refrain from  
25 asking questions that would deal with modeling numbers and

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01 output that would allow Mr. Starr to go deal with this, and  
02 I can move on with my other cross.

03 HEARING OFFICER STUBCHAER: Ms. Murray.

04 MS. MURRAY: Well, it is not possible in that they car  
05 pooled from Stockton.

06 HEARING OFFICER STUBCHAER: All right.

07 MS. MURRAY: State, you know.

08 HEARING OFFICER STUBCHAER: I knew Caltrans was from

09 Stockton. I knew the Delta office was in Stockton. I  
10 didn't know which of you were from -- I didn't remember  
11 anyway.

12 MS. McKEE: Table 4 was simply the Lotus spreadsheet  
13 that was provided to everyone from Jones & Stokes, and just  
14 doing a summary for all Marches, all Januarys, and basically  
15 looking at average percent increases and looking at  
16 entrainment maximums. And that is their hydraulic output  
17 spreadsheet.

18 MR. NELSON: I have no comment on that statement by Ms.  
19 McKee. We simply need to see the data that supports those.  
20 An explanation is just that, an explanation. It doesn't  
21 provide us with data to confirm what is stated without them,  
22 about those tables.

23 Once again, all we are asking is if we can have the  
24 data that is in those tables provided to us as well as the  
25 information that Jones & Stokes provided to Fish and Game to  
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01 verify tables and these numbers so we don't have on spend  
02 hours crossing on numbers, tables, in this Biological  
03 Opinion.

04 HEARING OFFICER STUBCHAER: Well, I will say that Table  
05 4 does show the range of the values themselves and the range  
06 of the percentage change, which is a lot more value than  
07 Table 5.

08 MR. NELSON: I don't believe it has years, and those  
09 are the types of things we would like to be able to see to  
10 be able to understand the whole picture.

11 HEARING OFFICER STUBCHAER: Is that data you said was  
12 available?

13 MS. MURRAY: For Table 4?

14 HEARING OFFICER STUBCHAER: Yes. You said some data  
15 was available. I don't recall what the reference was.

16 MS. MURRAY: Right now?

17 HEARING OFFICER STUBCHAER: No. I don't believe any  
18 data is available right now.

19 MS. MURRAY: And for the record, Mr. Starr did just  
20 exit the room with a cell phone to call his office to see,  
21 just to make sure somebody is there when they get back, and  
22 also to try to facilitate running some of this. But no  
23 data, I believe, is available now.

24 HEARING OFFICER STUBCHAER: Does he have an E-mail  
25 address if he needs it, Mr. Starr?

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01 MR. NELSON: I can provide it to him. I believe he has  
02 our E-mail address, but I can provide it to him.

03 MS. McKEE: I have printouts from Mr. Shaul's  
04 hydraulic, ones for exports and all of that. It is 50 pages  
05 of printouts.

06 MR. NELSON: We'd still like to see that 50-page  
07 printout.

08 HEARING OFFICER STUBCHAER: We either are going to go  
09 off the record or speak up so it can be on the record. We  
10 can't be inbetween.

11 MS. MURRAY: My question to Deborah is: Can you copy  
12 the 50 pages tonight and bring it tomorrow?

13 MS. McKEE: Yes.

14 MS. MURRAY: That is for Table 4?  
15 MS. McKEE: Yes.  
16 MR. NELSON: Is it possible to have somebody copy it  
17 now in your office and have it delivered tonight so we  
18 actually have the ability to look at it, decide if we  
19 actually need to cross, have any cross-examination on it?  
20 MS. McKEE: It may be possible, but I don't have any  
21 staff people assigned to me that are over there right  
22 now. So I would have to call and take a break, go to my  
23 office and find out.  
24 HEARING OFFICER STUBCHAER: Is it worth taking a break?  
25 MR. NELSON: It's fine with us to take a break to find  
0198  
01 out what information we can get as soon as possible.  
02 HEARING OFFICER STUBCHAER: To get the information that  
03 is in this case?  
04 MR. NELSON: Yes.  
05 HEARING OFFICER STUBCHAER: Back to my original  
06 question: Are we basically at the point of concluding  
07 today's hearing and just wait for the data to come back?  
08 MS. MURRAY: I think that we can ask a number of  
09 questions outside these data questions that he has. I  
10 believe he has some quality questions that we can make  
11 progress so that we try to finish this week.  
12 HEARING OFFICER STUBCHAER: Does this involve Ms. McKee?  
13 MS. MURRAY: Right. Also, he had a question about 54  
14 and 55 of the Biological Opinion that Frank is prepared to  
15 answer. So I do think that he can still make progress.  
16 HEARING OFFICER STUBCHAER: You want to excuse Ms.  
17 McKee to get that data?  
18 MS. MURRAY: And if a question comes up, in which we  
19 need her answer, we will defer it till she come back.  
20 HEARING OFFICER STUBCHAER: Defer it.  
21 MS. MURRAY: There is a question of copies. If it is  
22 50 pages, how many copies?  
23 MS. McKEE: Actually, I have a couple of summary sheets  
24 for that. It is all on diskette. This is what we were  
25 given by Jones & Stokes. I have a couple summary sheets on  
0199  
01 the basic runs. I can just go across the street and make  
02 those copies.  
03 What you need is the data diskettes that we received  
04 from Jones & Stokes.  
05 MR. NELSON: Do you have those in your office?  
06 MS. McKEE: No.  
07 MR. NELSON: I thought you said you had the data on  
08 diskette.  
09 MS. McKEE: I do have, but I don't have it in my  
10 office. I got that from Mr. Starr who has them in his  
11 office.  
12 MR. NELSON: Is it easier for you to get that data than  
13 Mr. Starr getting that data?  
14 MS. McKEE: No.  
15 MR. NELSON: The only thing is. We need as soon as  
16 possible. How ever Fish and Game decides to get it to us,  
17 that is fine with me.  
18 MS. MURRAY: And again, we said that we can go back to

19 Stockton and make a copy tonight and bring it tomorrow. I  
20 think that is the most reasonable thing. Debra could go  
21 back to her office tonight and make the copies, bring it  
22 tomorrow. That to me provides the least interruption to  
23 this process, and is reasonable.

24 MR. NELSON: I don't disagree that copies are nice.  
25 But if data is electronic, then it can be E-mailed to  
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01 us. And we are going to be up fairly late anyway. It  
02 doesn't bother us to have to get it tonight and look it over  
03 this evening so we can decide how and if we need to do any  
04 cross-examination.

05 If we get the data tomorrow morning, I still probably  
06 am not going to be able to cross and do anything with it  
07 until, at the earliest, mid afternoon, to have a chance to  
08 go through what is probably a fair amount of data. Whereas,  
09 if we get it this evening, we can look at it and move this  
10 on.

11 HEARING OFFICER STUBCHAER: I know it is desirable to  
12 get it this evening. I don't know how reasonable it is to  
13 go back to Stockton. Maybe Mr. Starr can give us a report  
14 of in any success or lack of success he had on the cell  
15 phone call.

16 MR. STARR: The success was I had to get a program put  
17 back on my machine. We recently updated some of the  
18 computers in our office, mine being one of them. I had to  
19 have a program put back on. We are switching to a different  
20 format. I got -- it's, hopefully, being taken care of  
21 within the hour.

22 HEARING OFFICER STUBCHAER: Will it be able to do  
23 E-mail?

24 MR. STARR: Yes. That is not the problem I had. The  
25 problem is dealing with Lotus. We are moving to Excel. We  
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01 have it--

02 HEARING OFFICER STUBCHAER: Excel will not read --

03 MR. STARR: Excel will read Lotus files. But I am more  
04 comfortable with Lotus than Excel. So I'd rather work in  
05 Lotus where I know what I am doing. Learning curve, it is  
06 kind of step for me right now.

07 MS. MURRAY: Jim, could you copy the information you  
08 got from Warren Shaul and E-mail to Delta Wetlands tonight?

09 MR. STARR: Yes.

10 MR. NELSON: Can we also ask you -- we will provide  
11 this later. Actually, E-mail to Dave Vogel and Keith Marine  
12 as they have the ability to download Lotus and our office  
13 doesn't.

14 MR. STARR: That is fine. I just need E-mail address.

15 MS. MURRAY: That should include the information that  
16 you got. So if you get the E-mail that we got from Warren,  
17 then that should be all you need.

18 MR. NELSON: I need E-mail from Warren and the data  
19 that supports those tables, that he didn't just make  
20 calculations and took our excerpts from Warren's data. We  
21 need to see the output from the winter-run entrainment  
22 data.

23 MR. STARR: Just to make a correction on that

24 statement. I did not take any excerpts from Warren's data.  
25 I used his model run, a model that he provided us, M Salmon,  
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01 which is in Exhibit 14 that describes that. Came up with  
02 data, the same results that I assume Warren did, and that is  
03 what we did. We didn't do anything to his data.

04 MS. MURRAY: You didn't change annual average number?

05 MR. STARR: That's correct.

06 MS. MURRAY: That is all we are talking about here,  
07 changing average annual to monthly.

08 HEARING OFFICER STUBCHAER: I don't think he changed  
09 average annual. I think he used the monthly, from which the  
10 average annual was derived.

11 MS. MURRAY: Not rocket science.

12 MR. NELSON: We would like the output that he used to  
13 develop the tables and the actual values that create the  
14 percentage change that are cited in the Biological Opinion.  
15 That is what we need.

16 MS. MURRAY: Jim, your committing to getting him the  
17 copies from Warren. Can you get him these, what he is  
18 additionally requesting?

19 MR. STARR: I am not familiar with the copies from  
20 Warren that he is talking about.

21 MS. MURRAY: Output data that you got from Warren?

22 MR. STARR: Yes.

23 MS. MURRAY: He is also asking for the data that  
24 supports Table 4 and 5, can you get him that tonight? If  
25 you can't --

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01 MR. STARR: Table 5, I can.

02 MS. McKEE: Table 4 was derived from three Lotus  
03 spreadsheets which just summarized hydraulic input, one for  
04 each month. One of baseline. Biological assessment.

05 MS. MURRAY: We will E-mail that to you.

06 MR. NELSON: The data that supports Figure 12?

07 MS. MURRAY: We just told you what we are going to get  
08 to you. You want blood?

09 MR. NELSON: I want to make sure what we are getting.

10 MS. MURRAY: You are getting what you just asked for.

11 MR. STARR: Yes.

12 MR. NELSON: Having done that, can we move on to some  
13 other questions that are not modeling related.

14 MS. MURRAY: We have one to finish up with.

15 MR. WERNETTE: Would you object if I just answered one  
16 question with respect to the Pages 54 and 55? I think will  
17 be very brief.

18 MR. NELSON: Actually, if it is just the data, the  
19 only question I had on that was actually the values that  
20 were provided. You said you would provide us with the data.  
21 I don't know if I am going to have any cross-examination  
22 questions for you.

23 MR. WERNETTE: A quick source of the data used and the  
24 table that is included, I believe, as part of the exhibit,  
25 Delta Wetlands 5, which is the transmittal of information

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01 from Mr. Shaul. We used the average data rather than the  
02 maximum values in order to derive those percentages.

03 MR. NELSON: Moving to something other than modeling.  
04 Mr. Wernette, in the Biological Opinion you stated that the  
05 Department believes that the RPMs, reasonable and prudent  
06 measures, could be accomplished, taking into account  
07 economic, environmental, social, and technological factors.

08 Did the Department make an analysis of the economic,  
09 environmental, social, and technological effect of the  
10 measures that it was proposing in the CESA Biological  
11 Opinion?

12 MR. WERNETTE: The assessment we did was very cursory  
13 from the standpoint of assessing the technological  
14 feasibility of the measures that we described, and we  
15 believed there was anything that we presented that would be  
16 technologically infeasible.

17 As far as the economic analysis, we performed a very  
18 cursory analysis with regard to economic effects and  
19 presented them on Page 65 of our Biological Opinion.  
20 Essentially, just to illustrate how our RPM's may affect  
21 project yield and use an equation that was presented. I  
22 believe one that is used by the Delta Wetlands' staff  
23 themselves in order to evaluate what it cost to operate  
24 their project and what a particular yield would result in  
25 terms of cost per acre-foot.

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01 And he used that same equation to just get a general  
02 ballpark idea of what the cost per acre-foot water would  
03 be. And he made an assumption that if the Board agreed with  
04 our recommendation that there be the ability to top off the  
05 reservoirs as described in our recommendation, that there  
06 really wouldn't be very little change in project yield; and,  
07 therefore, the project cost per acre foot would be very  
08 similar to what was calculated previously.

09 We are definitely not economists and don't pretend to  
10 be.

11 MR. NELSON: Patty, we have a copy of Page 65. Would  
12 you put that up?

13 That is the economic analysis that you are referring to  
14 number seven, the economic feasibility, which is from Page  
15 65, DFG Exhibit 11?

16 MR. WERNETTE: That's correct.

17 MR. NELSON: It is a correct interpretation that Fish  
18 and Game made one modification to this first paragraph? Can  
19 you explain what that modification was in the DFG 13 that  
20 was submitted?

21 MR. WERNETTE: It is in reference to rightness. In the  
22 center of that first paragraph of item seven on Page 65,  
23 there is a reference to an RPM 4.0. And the modification on  
24 the correction that we made was that that is not a  
25 reasonable and prudent measure, but instead was a

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01 recommendation made by the Department to the Board as a  
02 condition for the water rights, but was definitely not  
03 associated with the reasonable and prudent measure under  
04 CESA.

05 MR. NELSON: The recommendation you are the referring  
06 to is what?

07 MR. WERNETTE: The recommendation to allow Delta

08 Wetlands to have fixed top off provisions in the months of  
09 June through October.

10 MR. NELSON: The reasonable and prudent measures that  
11 you have proposed, particularly the March diversion  
12 prohibition and the environmental water, result in a  
13 significant yield loss to Delta Wetlands. Isn't that  
14 correct?

15 MR. WERNETTE: I don't believe I am -- have the  
16 qualifications to define what is a significant effect from  
17 the standpoint of the project and its feasibility. The  
18 estimate that we made of the reasonable and prudent measure  
19 one, which was the March diversion restriction, would delete  
20 about three percent of the average diversions that would be  
21 possible under with-project operation.

22 The environmental water was a little more difficult to  
23 assess. In the ball parks of about ten or eleven percent,  
24 in terms of loss diversion capability. So, we didn't make  
25 it a determination of whether that was significant from  
0207 project perspective. We know it makes a difference, that it  
02 does have an effect on project operations of a total of,  
03 say, 13 percent. But we didn't go beyond that.

04 MR. NELSON: Isn't it true with respect to the  
05 environmental water provision because it is a graduated  
06 scale from, I believe, five or ten percent up to 20 percent,  
07 if Delta Wetlands were to have a, quote, miracle February in  
08 which the Delta is in such an excess condition, that Delta  
09 Wetlands goes from empty to full in one month, which it can  
10 do, that 20 percent of that 238,000 acre-feet of water would  
11 be put into the environmental water reservation?

12 MR. WERNETTE: That's correct.

13 MR. NELSON: That is 20 percent of 238 is 48,000  
14 acre-feet?

15 MR. WERNETTE: That is a pretty good round number. One  
16 of the things we did in looking at that was, in addition to  
17 the biological effects of diverting during the month of  
18 February, was to look at the current planning issues,  
19 planning efforts that are being undertaken right now through  
20 the CAL/FED Bay Delta program.

21 I mentioned in my direct that the conditions since the  
22 Accord definitely would set a different stage for how we  
23 view water project development in the state. CAL/FED Bay  
24 Delta program's following that line and then some of the  
25 discussions about how new water project supplies would be

0208 evaluated, they're talking in terms of setting aside about a  
02 third of the new project yield to be used for environmental  
03 purposes and a third -- two-third shared between  
04 agricultural and M&I supplies.

05 We didn't think that those percentages were out of  
06 line, particularly when you -- the example you gave, Joe,  
07 was a good one. That is the worst case scenario in terms of  
08 a miracle February or fabulous February. Whatever you want  
09 to call it. The percentage that I quoted was the 70-year  
10 average because it's definitely higher under those kind of  
11 conditions that you described.

12 MR. NELSON: You just referenced CAL/FED as providing a

13 one-third reservation, that that is the objective that  
14 CAL/FED is approaching. CAL/FED is a 100-percent public  
15 funded or is using public funds?

16 MR. WERNETTE: The planning budget for CAL/FED right  
17 now is a source of combined federal and state funds. How  
18 the funding of the implementation of CAL/FED occurs is quite  
19 open for discussion. It may include a broad source of  
20 funding sources: private, public, contribution from water  
21 districts. Again, it's just hard to say how that will all  
22 pan out in terms of who will be sharing in the cost of  
23 implementation of that program.

24 MR. NELSON: In any case, it is public funds that are  
25 being used to provide the one-third, one-third, and

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01 one-third, not private funds; is that correct?

02 MS. MURRAY: Again, he has answered. That's been  
03 asked and answered.

04 HEARING OFFICER STUBCHAER: I think he answered it.

05 MR. NELSON: Was it your recommendation with respect to  
06 what you refer to as topping off, a recognition of the  
07 significant yield loss that would occur because of the RPMs  
08 that you are proposing?

09 MR. WERNETTE: We didn't link the acceptance of that  
10 recommendation by this Board with a recognition that we were  
11 recommending two measures that were going to represent very  
12 significant economic effects on a project. What we did was  
13 make that recommendation in the spirit of trying to figure  
14 out a way of working with Delta Wetlands and with the Board  
15 for a way -- in sort of a benign way, loss yield associated  
16 with evaporation, safety, perhaps, and environmental  
17 releases, not only for our RPMs, but also for the ten and  
18 twenty percent described under the current Final Operating  
19 Criteria.

20 Portions of those yield, lost yield opportunities for  
21 the project for M&I and agricultural water were believed to  
22 be the kind of cooperation that has been set by the Accord,  
23 and we felt really to be consistent with that by  
24 participating and recommending that.

25 MR. NELSON: Did you depend upon the topping off

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01 recommendation in making your judgment that the project  
02 would be economically feasible under the CESA biological  
03 agreement?

04 MR. WERNETTE: We did not.

05 MR. NELSON: So when you say, assuming the Board  
06 conditions the Delta Wetlands water rights permit in a  
07 manner consistent with striking an RPM of 4.0 with the  
08 DF&G's recommendation, and refers to -- would be similar to  
09 that yield of the project, you were not making the case that  
10 the 154 -- and recognizing that 154 is an economically  
11 feasible project?

12 MR. WERNETTE: No. We didn't make an assessment of  
13 whether 154 was economically feasible. We made a very  
14 simple calculation. That if we assumed the Board accepted  
15 our recommendation, that some of the modeling suggests that  
16 the replacement of water associated with our environmental  
17 measures would get back to the very close numbers, similar

18 to what was modeled under the Final Operating Criteria.

19 MR. NELSON: Was your analysis for feasibility  
20 dependent at all upon any yield for the project?

21 MR. WERNETTE: Could you repeat that question?

22 MR. NELSON: Did you, in determining the economic  
23 feasibility for the project, under this paragraph, did you  
24 depend upon any specific yield for the project or draw a  
25 line as to when you believe the Delta Wetlands Project would  
0211 not be feasible?

02 MS. MURRAY: I object. I think he's answered that  
03 question at least twice. He said this is the economic  
04 feasibility he's done. Simple calculation. You're  
05 belaboring the point. He's answered the question.

06 HEARING OFFICER STUBCHAER: I didn't hear the part of  
07 the answer about the cutoff line, what yield was necessary  
08 to make it economically feasible? Maybe it was said; maybe  
09 I was just dozing.

10 MR. WERNETTE: It's possible.

11 We did not have a defined line drawn in the sand that  
12 helped us describe what we might think this would be aligned  
13 with, where you cross over into infeasibility.

14 HEARING OFFICER STUBCHAER: That is the answer.

15 MR. NELSON: Mr. Wernette, talking about the topping  
16 off equation, can you again describe what you're referring  
17 to when you discussed recommendation for topping off?

18 MR. WERNETTE: You want me to go through net, how it  
19 works?

20 MR. NELSON: Can you explain your topping off  
21 recommendation that Fish and Game is making?

22 MR. WERNETTE: I will try to keep it really brief.  
23 It's a mechanism that when the project is storing water, and  
24 we have recommendation of 50,000 acre-feet at the end of  
25 February, I believe, as a trigger for when this would take

0212 effect, that beginning in the month of June, we, if the  
02 Board were agreeable, could condition Delta Wetlands' water  
03 rights to allow them to take a fixed level of diversion that  
04 is displayed in our table, through the screen diversions  
05 that would exist under the project on reservoir islands as  
06 long as they kept it below an approach velocity of a tenth  
07 of a foot per second. They would be able to take those  
08 diversions for the months of June through October, and the  
09 value fluctuates depending on the time of year, and it's in  
10 the months of June through August is actually directly  
11 related to current estimates of what is being used now for  
12 water supplies on the island to run the agricultural program  
13 that exists out there now on the two reservoir islands.

14 Those are the values that are displayed here with --  
15 Jim, take a few minutes and put up our DFG Exhibit 11, not  
16 the exhibit, but the table from DFG 11, which is on Page 70  
17 of our Biological Opinion. And the only small modification  
18 of this is to be consistent with the Final Operating  
19 Criteria, we subtracted out what we estimated the habitat  
20 islands will take in terms of managing those islands. This  
21 is a net value in the months of June through August. And in  
22 September and October, the risk to fish is at that point,

23 through the screen diversions, of a tenth of a foot per  
24 second is so small that we didn't believe it was necessary  
25 even to subtract habitat island water. This is essentially

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01 the water budget for the reservoir islands. So, the hundred  
02 cfs and 35 cfs in the months of September and October would  
03 be allowed and result in no net effect on the environment,  
04 and, as a matter of fact, would represent a net plus. There  
05 would be diversions through screened diversions.

06 The final thing is that this is not -- this is what is  
07 going on now. This would not be affected by export/inflow  
08 ratios that are calculated now to assess what diversions can  
09 occur out of the system.

10 MR. NELSON: What water rights were you intending for  
11 Delta Wetlands to use for this proposal?

12 MR. WERNETTE: Not being water rights attorneys, I  
13 think we testified that we would recommend that Board  
14 consider this as a condition of the water rights that Delta  
15 Wetlands is seeking now.

16 MR. NELSON: You were estimating that Delta Wetlands  
17 uses new water rights to indicate these topping off  
18 diversions?

19 MR. WERNETTE: That the new water rights would have the  
20 allowance for this and, if the Board accepted that  
21 recommendation.

22 MR. NELSON: Mr. Wernette, is Delta Wetlands right now  
23 diverting June, July, August, September, and October at its  
24 new water rights?

25 MR. WERNETTE: Could you ask that question again?

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01 MR. NELSON: Does Delta Wetlands divert in that period,  
02 from June through October, under its new water rights,  
03 already?

04 MR. WERNETTE: I am confused because you talk about new  
05 water rights; you are talking about the ones you are seeking  
06 or your existing rights in 1922 riparian rights?

07 MR. NELSON: The new ones.

08 HEARING OFFICER STUBCHAER: Put in the present tense,  
09 and so it is less confusing.

10 MR. NELSON: Under the modeling that was done, the new  
11 appropriative rights that Delta Wetlands is applying for,  
12 did the modeling show Delta Wetlands diverting in those  
13 months from June to October under what would be new  
14 appropriative water rights?

15 MR. WERNETTE: You're asking if the model itself  
16 assimilates this?

17 MR. NELSON: Did the model show that Delta Wetlands  
18 diversions, under the new appropriative rights, regardless  
19 of the topping off criteria in June through October?

20 MR. WERNETTE: The modeling does indicate months in  
21 which there are the diversions if you get your water rights  
22 permit for storage.

23 MR. NELSON: So Delta Wetlands is already diverting  
24 those under its new water rights, already?

25 MR. WERNETTE: Those months where the other criteria

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01 are met and you can do it, I think the model indicates those

02 diversions occur.

03 MR. NELSON: What distinction are you then making  
04 between the existing additional diversions which presumably  
05 divert all available water under its operations criteria, to  
06 this new topping off criteria that you are proposing?

07 MR. WERNETTE: What we are suggesting is that, I  
08 guess, in a sense keeping track of two separate books that  
09 the diversions that are modeled under the modeling done by  
10 Jones & Stokes for the Board would be the specific amount of  
11 water that is available to meet the other Final Operating  
12 Criteria. These diversions would occur on top of those and  
13 in even those years where, say for instance, it doesn't  
14 appear there was available water in months of, say, August  
15 that the minimum amount described in this table would be  
16 allowed.

17 MR. NELSON: Are you suggesting that Delta Wetlands is  
18 not required to follow the water law with respect to  
19 availability of water?

20 MS. MURRAY: I think that calls for a legal  
21 conclusion.

22 HEARING OFFICER STUBCHAER: Rephrase the question.

23 MR. NELSON: What are you referring to when you say  
24 Delta Wetlands could divert water when water is otherwise  
25 not available?

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01 MR. WERNETTE: Keep this brief. That the Final  
02 Operating Criteria -- Mr. Forkel has done a good job of  
03 describing those different measures and the steps that are  
04 gone through to determine whether there is available water.  
05 In the Final Operating Criteria, in the federal opinions the  
06 calculation of available water is a percent of available  
07 water taken into account, the Board's own Water Quality  
08 Control Plan and the export/inflow ratios that are set in  
09 that plan. I wouldn't necessarily characterize that as  
10 water law, but, again, I am not an attorney in that area, at  
11 all. In that area, I know very little.

12 My statement is in reference to the Final Operations  
13 Criteria that, if you go through those steps that Mr. Forkel  
14 described and you determine that there, for instance, is no  
15 available water to divert in the month of August, this  
16 recommendation would still allow for diversion of 150 cfs  
17 during that time, because we believed it would not affect.  
18 It would be much different than what is occurring right  
19 now.

20 MR. NELSON: Have you modeled whether there would ever  
21 actually be such water available under the topping off  
22 proposal that you are making?

23 MR. WERNETTE: Our assumption was that when you talk  
24 about it being available, in the context of existing Water  
25 Quality Control Plan restrictions, we didn't see anything

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01 that would give us the capability of determining times when  
02 water would not be available for diversion. In other words,  
03 physically, water is available any time you want to open a  
04 diversion in the Delta. So, in terms of availability, in  
05 this case, unless there were some extremely dry drought  
06 conditions where people with riparian water rights might be

07 affected in the Delta, which I am just speculating that that  
08 would be very severe conditions, where you actually could  
09 deter diversions onto agricultural land that exist now, I  
10 would think that would be a very catastrophic event. We did  
11 not feel that was necessary to even consider that in our  
12 recommendation because we figured that would be a fairly  
13 rare event to occur.

14 MR. NELSON: Did you ever model whether or not these  
15 topping off diversions would actually yield any water?

16 MR. WERNETTE: We did not even run any independent  
17 analyses of models. But, by inspection, if you can  
18 calculate a thousand -- the volume of water that these  
19 particular topping off provisions would allow, and we did  
20 compare that with modeling output that is provided in the  
21 Draft EIR for predicted evaporation losses. As I mentioned  
22 earlier, I calculated estimated loss of project yield. So  
23 we are able to at least get some sense for what percentage  
24 of the evaporation losses that occurred on the Delta  
25 Wetlands's island, say, during the April through June or

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01 April through October period to know that this would result  
02 in an offsetting, to a great extent, those evaporative  
03 losses.

04 MR. NELSON: I am a little confused. You just stated  
05 that you didn't do any modeling. Then you are saying this  
06 will offset evaporative losses.

07 If you didn't model and actually identify the yield  
08 that would be created by this topping off, how did you come  
09 to the conclusion that we would be offsetting evaporative  
10 losses?

11 MR. WERNETTE: As I mentioned, we didn't do any  
12 independent modeling, but inspected the data presented in  
13 the Draft EIR in terms of estimated evaporation losses of  
14 the reservoir islands, and by simply using a calculator to  
15 calculate out what it is that the Delta Wetlands would be  
16 allowed to take under this provision, total, during this  
17 June through October period, and look at those data in terms  
18 of what is the total yield of this measure versus  
19 evaporative losses that are predicted and presented in the  
20 Draft EIR.

21 MR. NELSON: Assuming the water is actually available,  
22 you did not determine?

23 MR. WERNETTE: I am still struggling with that  
24 qualification, Joe, about whether it is available. Because  
25 the measures that we are talking about here would not --

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01 would be exempt from the export/inflow criteria. They would  
02 be exempt from the other criteria that are described in the  
03 Final Operating Criteria.

04 So, we would not expect that there would be a condition  
05 where this water would not be available to perform this, if  
06 the Board agreed to include this in the water rights.

07 MR. NELSON: Did you consider Delta Wetlands new  
08 appropriative rights status as a junior appropriator and its  
09 priority in the system in making that conclusion?

10 MR. WERNETTE: Again, it is beyond my expertise to  
11 describe or to figure out what, to the extent that some of

12 the settlement agreements you have reached and some on what  
13 this affect is or not. I just don't know.

14 HEARING OFFICER STUBCHAER: Ms. Leidigh.

15 MS. LEIDIGH: Mr. Wernette, I would like to clarify a  
16 little bit. What is the basis for you assuming that this  
17 water would be exempt from the export/inflow ratios?

18 MR. WERNETTE: The basis for it is that -- it's at  
19 least our Department's view that the Accord Water Control  
20 Plan applies to the state and federal water projects,  
21 basically, existing water projects in the Delta. There is  
22 -- it isn't obvious that those criteria apply directly to a  
23 proposed new project. So, we didn't necessarily feel that,  
24 because of that, we didn't necessarily feel that this  
25 recommendation was inconsistent with the Water Quality  
0220  
01 Control Plan.

02 MS. LEIDIGH: Also, you were talking about riparian  
03 rights. Are you really suggesting that Delta Wetlands  
04 should be doing the topping off based on some riparian  
05 rights or old appropriative rights, not under a new  
06 application?

07 MR. WERNETTE: Our recommendation is specifically a  
08 condition we are recommending for this sought after water  
09 rights, right now. I don't believe we have any position at  
10 all whether its appropriate or legal to use their existing  
11 riparian rights or appropriative rights to do this.

12 MS. LEIDIGH: Have you gone through -- I am not sure  
13 you answered this. Have you gone through an analysis where  
14 you took the amount of water that is in the Delta, the  
15 amount of water that is needed for meeting the Water Quality  
16 Control Plan requirements, and then look at how much of the  
17 water that is in the Delta that was already appropriated by  
18 somebody upstream, like the Department or the Bureau, and  
19 moving through the Delta to the pumps, have you figured out  
20 if there is anything left during these months?

21 MR. WERNETTE: The way we looked at this provision was  
22 by making it consistent with existing water uses. We made  
23 the assumption, perhaps incorrectly or too simplistically,  
24 that the existing assumptions about water use within the  
25 Delta, in terms of calculating evapotranspiration rates and  
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01 other existing uses that have been discussed quite  
02 extensively here during testimony by other parties, take  
03 into account the existing agricultural uses on these  
04 islands.

05 So, when water comes into the Delta, someone else, the  
06 Department of Water Resources and their land use specialists  
07 and others, has calculated the water that is currently being  
08 used on those agricultural islands, in calculating what is  
09 coming in in terms of inflow, and to calculate the  
10 export/inflow ratio. So while those numbers may be not  
11 specific to these islands, we thought it was a fair  
12 assumption to say that if we stayed within the current land  
13 uses, the water uses that are currently being used out  
14 there, that we would have no affect on the available water  
15 that is in the Delta.

16 MS. LEIDIGH: So, perhaps what you are saying, and you

17 can tell me if this is right, because they would not be  
18 putting those islands to the current uses, under current  
19 rights, that that would make water available that is  
20 currently not available for appropriation. Is that what you  
21 are then saying?

22 MR. WERNETTE: That may be more sophisticated than I --  
23 I wasn't thinking in terms of making available under  
24 different water rights. I was simply using the existing  
25 water use as part of the existing depletion of the channel  
0222  
01 depletions that are assessed -- that are already taken into  
02 account when water managers in the Delta are assessing what  
03 is available for export.

04 MS. LEIDIGH: You are saying there would be water that  
05 wasn't used under certain uses and that water would be freed  
06 up for use by Delta Wetlands Project? Is that what you are  
07 trying to say?

08 MR. WERNETTE: I think that is -

09 MS. MURRAY: In other words, you are talking about the  
10 Delta Wetlands' islands?

11 MR. WERNETTE: Right, two reservoir islands.

12 MS. MURRAY: He is not talking about just any island.

13 MS. LEIDIGH: Yes. Just trying to understand where  
14 this is coming from, what your reasoning is.

15 MR. WERNETTE: One thing that is -- there has been a  
16 tremendous amount of testimony about where the foregone  
17 agricultural results in increased Delta outflow, or whether  
18 that will result in a recalculation of channel depletions,  
19 and that will just up the anti in terms of what is  
20 available, and that will be exported.

21 From our perspective, we weren't as interested in that,  
22 but our logic isn't too inconsistent from that, in the sense  
23 that if we don't change channel depletion numbers because of  
24 this measure, there is no need for everybody to recalculate  
25 channel depletions. Essentially, channel depletions are the  
0223  
01 same as what are under existing conditions. There will be  
02 no increased outflow or at least calculated outflow. So, in  
03 our view, it is pretty simple or a pretty simplistic idea.

04 MS. LEIDIGH: I think I understand what you are  
05 saying.

06 MR. NELSON: I would like to turn to Ms. McKee.

07 In your testimony, you stated that one of your concerns  
08 was the effects of the Delta Wetlands Project on downstream  
09 migration of juvenile winter-run chinook salmon; is that  
10 correct?

11 MS. McKEE: Yes.

12 MR. NELSON: The winter-run chinook salmon that are  
13 listed under ESA and the California Endangered Species Act  
14 are Sacramento River origin?

15 MS. McKEE: Yes, they are.

16 MR. NELSON: Now, with respect to downstream migration,  
17 isn't it true that the potential entrainment of Sacramento  
18 River salmon into the Central Delta is primarily through the  
19 Delta Cross Channel and Georgiana Slough?

20 MS. McKEE: Yes, it is primarily through the Delta  
21 Cross Channel and Georgiana Slough. Those are the major

22 entrance points, we believe.

23 MR. NELSON: Isn't it true that the DCC is closed from  
24 February 1st through May 20th?

25 MS. McKEE: February 1st through, I think, May 1st.

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01 MR. NELSON: So, during that closure, juvenile salmon  
02 outmigration going into the Central Delta would be somewhat  
03 less than when the DCC is open; is that correct?

04 MS. McKEE: Yes. I think I testified to the difference  
05 between 20 up to 70 percent when the DCC is closed, and  
06 generally 20 percent, those are the range amounts depending  
07 on inflow of how much there is in Georgiana.

08 MR. NELSON: Did you say the 70 percent and 20 percent  
09 figures? Can you identify which is which?

10 MS. McKEE: 70 percent is when the DCC and Georgiana  
11 are open. That was a general figure. There is a range for  
12 both.

13 MR. NELSON: So, when you're making the statement that  
14 juvenile chinook salmon will be in the Delta and their  
15 presence in the Delta is 50 percent in the month of March  
16 and the DCC is closed, that statement with respect to the 50  
17 percent distribution in the Delta has to be taken in context  
18 that the DCC is closed; is that correct?

19 MS. McKEE: No. Are you saying -- I think I see where  
20 you are going with this logic, and, no. You wouldn't  
21 have 20 percent in the Delta in March because there is 20  
22 percent of the flow coming through Georgiana. Is that what  
23 you are getting at?

24 MR. NELSON: Yes. What I was asking was when you make  
25 the statement that 50 percent of juvenile chinook salmon are

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01 in the Delta in March, you have to also consider the context  
02 that one of the main pathways to entrainment for the Central  
03 Delta, that is Delta Cross Channel, is closed during that  
04 period.

05 MS. MURRAY: I want to make -- I didn't hear you lay  
06 the foundation for the 50 percent. Did I miss that?

07 MR. NELSON: It is in the Fish and Game testimony. It  
08 is also in the Biological Opinion. Mr. Wernette is nodding  
09 yes to that effect.

10 MS. McKEE: I don't recall testimony in my Biological  
11 Opinion talking about the cumulative portion of winter-run  
12 chinook salmon that may be in the Delta that were part of a  
13 modeling effort, the mortality model. So it is a little bit  
14 out of context here. But that distribution that is in the  
15 Biological Opinion is depicting what we agreed would be our  
16 best effort at trying to show the cumulative presence of  
17 reduction in the Delta for the springtime. As fish are  
18 moving into the Delta in the spring and none are leaving,  
19 you start to accumulate fish. You reach a certain point  
20 where some are leaving the Delta. We are basically coming  
21 up with that distribution pattern, to give to Warren, back  
22 to 1995 to see how that would affect the mortality model.  
23 So I think it was kind of out of context here.

24 On your question of do fish come through Georgiana even  
25 when the Delta Cross Channel is closed, yes.

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01 MR. NELSON: You had also testified with respect to and  
02 had discussions about the diversion, winter-run diversion  
03 index, that was used in the Biological Opinion.

04 Can you explain the basis upon which Fish and Game  
05 decided to use those four boxes out of the DeltaMOVE Model  
06 instead of only just the Cross Delta flow parameters.

07 MS. McKEE: Do you want me to explain this or is this  
08 for Jim Starr?

09 MR. NELSON: If Mr. Starr can explain, that is fine.

10 MR. STARR: Again, the four boxes you are talking about  
11 that we used were four boxes that were in the M Salmon Model  
12 or macro, would be a more accurate description. And those  
13 four boxes were boxes that Warren determined were avenues in  
14 which the first could enter the Delta, and they would be  
15 present in.

16 So with that in mind, models derived -- it only looks  
17 at four boxes; that's it. There is no other boxes that we  
18 can exclude or take out. If you wanted to do that, I  
19 imagine you would have to manipulate the models somehow, and  
20 we didn't do that. The four boxes we used were four boxes  
21 that were present in the model.

22 MR. NELSON: The four boxes in the DeltaMOVE Model, not  
23 the salmon mortality model; is that correct?

24 MR. STARR: No, not the DeltaMOVE Model; the M Salmon  
25 Model.

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01 MR. NELSON: Did Mr. Shaul include four boxes in his  
02 salmon mortality model?

03 MR. STARR: I cannot answer that.

04 MS. McKEE: I can answer on the last one. That was  
05 the -- we only used the cross Delta flow parameter, which is  
06 the synonym for the Mokelumne River box. And these are not  
07 salmon; these are particles. And we have to keep that  
08 straight because when you are talking as little fish that  
09 are being killed, it is simply a particle transport model so  
10 you can get an idea of where Sacramento water is entering  
11 into the Central and South Delta.

12 So the entrainment index is simply looking at the other  
13 locations that are acknowledged entrance points of the  
14 Sacramento water entering the Central and South Delta, which  
15 is acknowledged that the fish do follow those flows. It was  
16 not put into the mortality model simply because there is no  
17 specific index developed by Fish and Wildlife Service to  
18 ascertain the exact proportion of juvenile chinook salmon  
19 that come up below San Joaquin River or through Three Mile  
20 going into a mortality index by Fish and Wildlife Service  
21 developed for fish coming up through those points. So, Mr.  
22 Shaul simply relied on the one location in which there is a  
23 mortality index developed by the service for his mortality  
24 model. So, he stuck with the Mokelumne River box. Not to  
25 say that the fish don't come up the other pathways as well.

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01 MR. NELSON: With respect to the fish -- actually, Ms.  
02 McKee, you mentioned the U.S. Fish and Wildlife Service  
03 model. Are you referring to the Kjelson Model?

04 MS. McKEE: Yes, Mr. Kjelson's model. There is the  
05 Kjelson Model. There is the models, just a summary of 20,

06 19 years worth of research at various sites. And the model  
07 you are referring to is simply the mortality index for  
08 fish inserted in Georgiana Slough and the Delta Cross  
09 Channel.

10 MR. NELSON: You mentioned that there hasn't been a  
11 mortality -- the relationships for mortality for the other  
12 pathways such as Herman Island and Three Mile Slough, to  
13 those. How did you treat those? Or when you were looking  
14 at entrainment, the entrainment flow through those other  
15 boxes, did you make the assumption that salmon would be  
16 going with the flow splits at Three Mile and Sherman Island,  
17 the same way they would at Georgiana?

18 MS. McKEE: We simply looked at the results of the  
19 entrainment index, the winter-run chinook and entrainment  
20 index, and the diversion index, as well as looking at Q  
21 West, changes in inflow, changes in percentages of  
22 Sacramento flow diverted, changes in level of exports out of  
23 South Delta pumps, changes in inflow. We looked at all of  
24 the habitat parameters and we did not make any assumptions  
25 that those individual particles of water in the entrainment

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01 index were actually salmon.

02 We wanted to see how much Sacramento flow was being  
03 brought across and the fate of those particles, as well as  
04 the flow parameters.

05 MR. NELSON: Did you treat the values that were coming  
06 out of the four boxes as equal, regardless of how salmon  
07 might go with different flow splits?

08 MS. McKEE: I was given the summary information which  
09 was the sum of the particle transport data for all four  
10 boxes. This is a bad way of describing it. You are talking  
11 about four boxes. But anyway, if particles of Sacramento  
12 water that come through Georgiana Slough, and, actually, not  
13 the DCC because all this modeling through the cross channel  
14 was closed. So particles of water that come through the  
15 Georgiana Slough, particles of water that continue down the  
16 Sacramento River and then enter through Three Mile and the  
17 Lower San Joaquin, and move from one unit to the next, to  
18 see the fate of those particles of water. We looked at the  
19 grand summary.

20 MR. NELSON: Are you familiar -- isn't it true that the  
21 Kjelson Model and the Shaul mortality model, the reason they  
22 use the flow splits at DCC and Georgiana is because there is  
23 established data as to how salmon move with the flow splits  
24 at those two channels?

25 MS. McKEE: Yes. I think I just testified to that.

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01 MR. NELSON: There is no such information to identify  
02 how salmon deal with the flow splits at Three Mile or  
03 Sherman Island, which are the results of your other boxes?

04 MS. McKEE: There is information that shows fish are  
05 entrained in those locations. However, the Fish and  
06 Wildlife Service and the fishery agencies, through the IEP  
07 process, the Interagency Ecological Program, we have talked  
08 about for years how we could try and determine the actual  
09 percent of fish that go up the Lower San Joaquin versus  
10 continuing to Chipps, and trying to sample at the mouth of

11 the San Joaquin or at Three Mile, and determining those flow  
12 splits is essentially, virtually right now, impossible. And  
13 I think Mr. Hanson, who is not here today, can testify to  
14 how difficult it was when he was trying to do that very same  
15 work at Georgiana. Hundreds of thousands of that it took to  
16 try to do that.

17 So, unfortunately, we don't have the information on  
18 just how many fish go up the Lower San Joaquin River. So,  
19 my estimate of that information would have to make some  
20 qualitative judgments. But we do have documentation of fish  
21 that go up there, tagged fish.

22 MR. NELSON: Given minus, as you just said, minus that  
23 information, you still treated those four boxes as equal  
24 values when you were developing the index results for  
25 Figure 12; is that correct?

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01 MS. McKEE: Again, it is not treating them as equal  
02 values. My understanding is the fate of particles moving  
03 from one box to another. So, basically, it is looking at  
04 water entrainment at Central and South Delta coming from  
05 Georgiana Slough and down through Three Mile and the Lower  
06 San Joaquin, and we looked at the grand total.

07 MR. NELSON: Are you aware that Mr. Shaul, instead of  
08 using The M Salmon Model that you did, that his analysis  
09 looked at some of the same factors that you did, Q West  
10 changes in inflow, export, and he made a qualitative  
11 analysis rather than using those other boxes? Is that true?

12 MS. McKEE: In Mr. Shaul's direct testimony and also in  
13 the DEIR/EIS there is discussion about the changes to those  
14 flow variables. They are very qualitative in nature. They  
15 acknowledge that there will be increased reversed flows,  
16 increased potential for entrainment to South Delta  
17 channels. In fact, all of that verbiage in narrative, in  
18 our opinion, is pretty much not in the DEIR/EIS.

19 But then the testimony, the way I interpreted it in the  
20 EIR/EIS, relied essentially on the outflow and mortality  
21 index as the key points in saying that the project impacts  
22 were so small, inflow.

23 MR. NELSON: Is it your understanding that he did look  
24 at other variables, as you said, qualitatively?

25 MS. McKEE: That's correct.

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01 MR. NELSON: Can we turn to spring-run with respect to  
02 upstream migration?

03 The peak upstream migration in spring-run, is that in  
04 in April and May?

05 MS. McKEE: I don't think we are actually certain when  
06 there is a peak. We do know that it ranges from January  
07 through June.

08 MR. NELSON: In your testimony you mentioned the fact  
09 that the Webb Tract and Bouldin Island is primary migration  
10 corridor; is that correct?

11 MS. McKEE: Uh-huh.

12 MR. NELSON: And isn't it true that Delta Wetlands is  
13 not discharging water from Webb Tract from January to June?

14 MS. McKEE: Webb will not be discharging or export.  
15 But under the CESA Biological Opinion, Webb would be

16 discharging for -- Webb would have some discharges for the  
17 environment; and also the habitat islands might have some  
18 discharges. But I was not aware of the exact month, which  
19 months the habitat islands might be making some of their  
20 releases.

21 MR. NELSON: Lastly, you had recommendation in your  
22 testimony that Delta Wetlands install fishing screens on,  
23 what I think you stated was, an unstated amount or  
24 undetermined amount of diversion in Georgiana and the North  
25 and South Forks of the Mokelumne River.

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01 What is the basis for that recommendation?

02 MS. McKEE: After looking at the final results, even  
03 after condition, project being conditioned by the  
04 Department's reasonable and prudent measures and additional  
05 conservation measures, the values for reverse flows in Lower  
06 San Joaquin River, these still outstanding levels of  
07 increased diversions of Sacramento water into the Central  
08 and South Delta levels of exports, and, actually, my  
09 understanding is the use of the mortality index model would  
10 indicate that there were effects to winter-run salmon.

11 And my personal and professional opinion is that there  
12 is still mitigation that should be affected to offset those  
13 impacts, to basically no significant impact to winter-run  
14 chinook salmon and completely offset those impacts. One of  
15 those are still a very precarious position. The modeling  
16 still shows a 93 percent chance of extinction if we maintain  
17 mortality levels as they are right now, without this  
18 project; and any increase in mortality levels increases that  
19 chance for extinction.

20 MR. NELSON: Is there any basis in your recommendation  
21 with respect to Delta Wetlands Project operations changing  
22 those diversions through the unscreened facilities that you  
23 would have Delta Wetlands now screen?

24 MS. McKEE: Repeat the question, please.

25 MR. NELSON: Were you suggesting or was the basis of

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01 your conclusion that these diversions should be screened,  
02 that Delta Wetlands is somehow affecting other unscreened  
03 diversions in the Delta in the sense of its operations?

04 MS. McKEE: Let me answer that in two parts.

05 The reason for recommending screening is that the  
06 Department has made its recommendation as far as  
07 modification to project operations. And looking for what  
08 additional types of mitigation might be feasible, would be  
09 beyond the scope of asking for any additional project  
10 modification, project operation modification. So,  
11 screening would be one type of -- out of kind type of  
12 mitigation that would be feasible and that would afford  
13 additional protection to winter-run.

14 As far as the second part of my answer, my  
15 understanding is that the mortality model itself, basically,  
16 is based on an assumption that as Delta Wetlands increased  
17 the changes in internal Delta hydrodynamics, it does  
18 increase the vulnerability of these fish or the particles of  
19 water to entrainment at other unscreened diversions as well  
20 as the state and federal water project pumps. So, that is

21 part of the assumption in your model.

22 MR. NELSON: Are you suggesting, since you focus on  
23 Georgiana Slough, are you suggesting that Delta Wetlands  
24 affects the rate of the flow split at Georgiana Slough?

25 MS. McKEE: No, that has nothing to do with it.

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01 Georgiana Slough is just being such a critical corridor for  
02 fish that are entering into the Central Delta. Anything  
03 that would increase the survival through that corridor would  
04 be very beneficial to the species.

05 MR. NELSON: Did you consider that Delta Wetlands is  
06 already screening 92 unscreened diversions?

07 MS. McKEE: Yes, I did.

08 MR. NELSON: Did you consider or make any  
09 considerations as to whether this type of requirement could  
10 be particularly imposed upon Delta Wetlands with respect to  
11 whether the Board has authority for Delta Wetlands to screen  
12 other people's diversions?

13 MS. McKEE: I believe that if Delta Wetlands were to  
14 agree to this mitigation measure, that difficulty, as far as  
15 working with other people's unscreened diversions, could be  
16 overcome. I know that the Department of Fish and Game is  
17 taking the same approach as its principal mitigation measure  
18 for its striped bass program and the relative effects on  
19 winter-run chinook salmon; and we run into the same issues  
20 as far as doing the work and then issues of ownership and  
21 maintenance of the facility in perpetuity. And those are  
22 the issues, I think, could be worked out and overcome.

23 MR. NELSON: Move to Mr. Sweetnam.

24 Mr. Sweetnam, in your testimony you criticized the fish  
25 monitoring program that is the Final Operations Criteria

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01 with respect to the approved 50 percent reduction in the  
02 diversion rate, if a Delta smelt is found in the presence of  
03 the diversion facility.

04 Isn't it true that you actually attended at least one  
05 of the meetings at least in which that measure was discussed  
06 in the joint consultation?

07 MS. SWEETNAM: Yes, I did. And I stated that probably  
08 wasn't an appropriate method for taking care of that. I  
09 voiced my concern at that meeting that that wasn't going to  
10 work.

11 MR. NELSON: You voiced -- I am sorry, you said you  
12 voiced concern --

13 MR. SWEETNAM: First of all, I attended a meeting with  
14 Delta Wetlands and Fish and Wildlife Service. I am not sure  
15 of the date, but I did attend a meeting discussing  
16 monitoring.

17 MR. NELSON: You said you voiced this concern. Did  
18 Fish and Game ever follow-up and continue to discuss this  
19 issue before the monitoring group that was working on the  
20 fishing monitoring program?

21 MR. SWEETNAM: I did not.

22 MR. NELSON: Mr. Wernette, did Fish and Game ever  
23 follow up on this stated concern?

24 MR. WERNETTE: We did not. And the reason for that was  
25 that, in our view, the combination of measures that we were

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01 recommending for reasonable and prudent measures, at that  
02 time, presented a large safety net, and the additional  
03 projection, even if it wasn't extremely efficient of using  
04 the information collected in the channel to further modify  
05 the operations when Delta smelt were right in the vicinity  
06 of the intakes, that, on the whole, that that inefficiency  
07 and the concerns that Mr. Sweetnam brought up were offset as  
08 a package.

09 I think that maybe, perhaps now, as some of those  
10 measures are not now present, there may be more of a concern  
11 of how effective that measure is and how it can be depended  
12 upon to modify project operations.

13 MR. NELSON: Did Fish and Game provide suggested  
14 modifications to the fish monitoring program?

15 MR. WERNETTE: Can you say that again?

16 MR. NELSON: Did Fish and Game ever provide  
17 modifications and recommendations for changes to that fish  
18 monitoring plan?

19 MR. WERNETTE: As the fish monitoring plan was being  
20 developed, we had quite a bit of opportunity to provide  
21 input and suggested corrections, and, to my knowledge, we  
22 were -- where we were at that time, we were fairly satisfied  
23 with the conclusions of that general framework that is  
24 described there. We don't have really a final monitoring  
25 plan. The details still have to be worked out; the

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01 specifics have to be worked out. But the framework that is  
02 described in the Final Operating Criteria, that is  
03 acceptable to the Department.

04 MR. NELSON: That framework included the 50 percent  
05 reduction, didn't it?

06 MR. WERNETTE: Yes, it did.

07 MR. NELSON: Mr. Sweetnam, in your testimony you put up  
08 a fall midwater trawl survey from, I believe, March of this  
09 year, showing Delta smelt presence down into the Central  
10 Delta?

11 MS. SWEETNAM: That is based on the -- it's a different  
12 survey. It is not in the fall; it is in the spring.

13 MR. NELSON: 20 millimeter?

14 MS. SWEETNAM: 20 Millimeter Survey. It is Figure 2 of  
15 Fish and Game Exhibit 9.

16 MR. NELSON: This is April, the month of April?

17 MS. SWEETNAM: This incorporates the last day in March  
18 and runs through May 3rd. These are the first three  
19 surveys.

20 MR. NELSON: In your understanding, what was the fall  
21 midwater trawl index last year for the four months?

22 MS. SWEETNAM: For 1996?

23 MR. NELSON: Yes.

24 MS. SWEETNAM: The actual number, I think it is 128.

25 MR. NELSON: I think that is right. Are you aware

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01 that, under the Delta Wetlands Final Operations Criteria,  
02 Delta Wetlands would not have been diverting from February  
03 1st through June 30th because of the fall midwater trawl  
04 index?

05 MR. SWEETNAM: Hopefully, that is conditioned in the  
06 Final Operations Criteria.

07 MR. NELSON: That is a condition. Under the Final  
08 Operations Criteria, are you aware that Delta Wetlands,  
09 because the fall midwater trawl index was 128, would not  
10 have diverted in March of this year?

11 MS. SWEETNAM: Right, I agree with that.

12 MR. NELSON: Also, in your testimony you raised a  
13 concern about fall midwater trawl index of 239 value. Isn't  
14 it true that Fish and Game in its Draft MOU from June of  
15 last year, specifically stated on page -- actually,  
16 incorporated the fall midwater trawl index values as a  
17 trigger for operational measures?

18 MS. SWEETNAM: I am not sure. I haven't reviewed the  
19 MOU.

20 MR. NELSON: Mr. Wernette, could you answer that  
21 question?

22 MR. WERNETTE: The answer is, yes, in the Aquatic  
23 Resources Management Plan, which was, again, a collaborative  
24 effort with all three of the fish and wildlife agencies and  
25 with EPA, this was -- in part of that collaborations, Fish

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01 and Wildlife Service felt very strongly that they wanted  
02 this trigger, and in the combining the group consensus in  
03 terms of what the measures ought to be, we included that in  
04 that ARMP and also in our Draft 2081 agreement that you are  
05 the referring to.

06 MR. NELSON: So this change in status as to whether  
07 Fish and Game approves it is a recent change in Fish and  
08 Game's position as to what the fall midwater trawl index,  
09 whether it should be used as an operational tool; is that  
10 correct?

11 MR. WERNETTE: I think it is more accurate to state  
12 that the issues that the Fish and Wildlife service have had  
13 and their desire to have the 239 trigger was one that in --  
14 that when took a look at the other operation measures that  
15 the Department had advocated, as far as this team, and we  
16 looked at the entire package, that we were not as concerned  
17 with the additional protection that was going to be  
18 triggered by this 239 index. Because, again, we believed  
19 that the overall package was one that was sound and provided  
20 some excellent protection for the two listed species that we  
21 we were dealing with.

22 So that any concern that we had about whether it was  
23 logical to use the 239 or whether it was being invoked  
24 during the right years when the species needed it, really  
25 wasn't an issue at the time. It only came later when the

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01 more protective measures that we advocated were deleted from  
02 the package and when the Final Operating Criteria came out.  
03 Some of the more significant protection that we advocated  
04 only got linked to the index of 239.

05 MR. NELSON: Would you -- were the discussions that  
06 created fall midwater trawl index of 239, those were --  
07 isn't it true those were discussions and attempts to create  
08 adaptive management tools that would reflect different needs  
09 and different conditions?

10 MR. WERNETTE: I believe that the representative from  
11 Fish and Wildlife Service described this condition, or this  
12 measure, as an adaptive management tool.

13 MR. NELSON: Mr. Sweetnam, you also criticized the  
14 application of the San Joaquin River flow percentage  
15 restrictions on Delta Wetlands, that are presently under the  
16 Final Operations Criteria apply at the fishery agencies'  
17 discretion for 15 or 30 days?

18 MR. SWEETNAM: Could you point out where I criticized  
19 that condition?

20 MR. NELSON: In your recommendations didn't you request  
21 and suggest that the San Joaquin River targets be applied  
22 for 120 days, not the 15 and 30 days that are in the Final  
23 Operations Criteria?

24 HEARING OFFICER STUBCHAER: Mr. Nelson, can you tell  
25 him where?

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01 MR. NELSON: Well, actually, he was looking at the  
02 chart.

03 MS. SWEETNAM: Actually, is it on your chart? Is that  
04 one of the last pages, Page 6 on your chart?

05 MS. MURRAY: Just because it is on the chart doesn't  
06 mean it is correct.

07 MR. NELSON: I will point it out in his testimony.  
08 Page 22 of Mr. Sweetnam's testimony, DFG Number 9, makes  
09 recommendation.

10 I further recommend that all Final Operations  
11 Criteria, Numbers 19, 20, 23, and 24, as  
12 referenced in Appendix 2 of U.S. Fish and  
13 Wildlife Service, be enforced by the Board in  
14 all water years regardless of the previous  
15 year's fall midwater trawl index. (Reading.)

16 I will stipulate that one, that the San Joaquin was one  
17 of those identified.

18 MS. SWEETNAM: It is one that you identified in your  
19 Exhibit 35. Yes, what I did was I recommended those four  
20 measures that were only in place when the fall midwater  
21 trawl index was less than 239 and incorporated in all years  
22 because the protection for Delta smelt does not necessarily  
23 protect Delta smelt in the appropriate year.

24 MR. NELSON: Did you inquire of with Mr. Wernette as to  
25 the purpose of that San Joaquin River flow restriction in

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01 the Final Operations Criteria as an adaptive management  
02 tool?

03 MS. SWEETNAM: No, I didn't.

04 MR. NELSON: Mr. Wernette, isn't it true that the 15  
05 and 30 day restrictions or applications for the San Joaquin  
06 River flow percentages were chosen reflecting the Delta  
07 Wetlands storage or, excuse me, diversion period of 30 days?

08 MR. WERNETTE: Can you repeat that question, please?

09 MR. NELSON: Isn't it true that in developing and  
10 discussing the Final Operations Criteria and the San Joaquin  
11 River flow percentage restriction, which is a 15 or 30 day,  
12 that the choice of 15 or 30 was based upon an understanding  
13 of Delta Wetlands' diversions period of 30 days to fill its  
14 reservoir islands?

15 MR. WERNETTE: I don't recall that exactly. I do  
16 recall just the fact that there was a 15-day period that  
17 could be called for by the Fish and Wildlife Service or  
18 recommended by the Fish and Wildlife Service, that that  
19 represented an adaptive management feature in their view,  
20 and that they would invoke that 15 days, presumably, when  
21 they felt it was most desirable.

22 MR. NELSON: When you refer to an adaptive management  
23 tool, you are referring to an application of professional  
24 judgment as to when a restriction is necessary and when it  
25 is most appropriate?

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01 MR. WERNETTE: That is my understanding. But that  
02 professional judgment would, to the extent that it could be,  
03 would be educated by data that was available and being  
04 collected in the Delta. During some times of the year there  
05 are substantial, fairly up-to-date information provided by  
06 the realtime monitoring program that I think would be used  
07 when that was available.

08 MR. NELSON: Are you familiar with the decisions by  
09 which the DCC is closed in December and January?

10 MR. WERNETTE: Only in a very superficial way. I am  
11 aware that there are a set of conditions. My memory was  
12 refreshed by the testimony of Dr. Hanson, so I think I would  
13 have to defer to any more detailed discussion about those  
14 triggers.

15 MR. NELSON: Those DCC closures are also adaptive  
16 management, where they select a certain period out of a  
17 broader range of times; is that correct?

18 MR. WERNETTE: I would have to pass on that. I am not  
19 at all familiar with how that is invoked.

20 MS. McKEE: Could you repeat your question again?

21 MR. NELSON: Are the DCC closures based upon -- they  
22 are closed for a certain period of days within a broader  
23 range. Isn't that correct?

24 MS. McKEE: In the fall months, not in the spring.

25 MR. NELSON: In the fall; isn't that correct?

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01 MS. McKEE: That is correct.

02 HEARING OFFICER STUBCHAER: Mr. Nelson, it is about  
03 time to wrap up for today. Do you have any more questions  
04 that immediately follow that?

05 MR. NELSON: No. That actually runs me up to -- I am  
06 going to have a couple more questions for Mr. Sweetnam and  
07 the rest of my questions are for Dr. Rich and whatever  
08 questions come from our review of the data tonight.

09 HEARING OFFICER STUBCHAER: The rest of your book, that  
10 doesn't represent the rest of your cross?

11 MR. NELSON: No.

12 HEARING OFFICER STUBCHAER: It has been quite a while.  
13 Do you have any estimate of how much longer it will require?

14 MR. NELSON: I have four questions for Mr. Sweetnam and  
15 I have some temperature questions for Ms. Rich.

16 HEARING OFFICER STUBCHAER: Tomorrow we have  
17 cross-examination and you have may have recross.

18 How many of the parties still here intend to present  
19 rebuttal testimony?

20 MR. MADDOW: Let's see what we may have.  
21 HEARING OFFICER STUBCHAER: Any staff comments before  
22 we recess for today?  
23 We will be in recess until 9:00 tomorrow morning.  
24 (Hearing adjourned at 4:45 p.m.)  
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01 REPORTER'S CERTIFICATE

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04 STATE OF CALIFORNIA )  
04 ) ss.  
05 COUNTY OF SACRAMENTO )

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08 I, ESTHER F. WIATRE, certify that I was the  
09 official Court Reporter for the proceedings named herein,  
10 and that as such reporter, I reported in verbatim shorthand  
11 writing those proceedings;

12 That I thereafter caused my shorthand writing to be  
13 reduced to typewriting, and the pages numbered 7 through 245  
14 herein constitute a complete, true and correct record of the  
15 proceedings.

16

17 IN WITNESS WHEREOF, I have subscribed this certificate  
18 at Sacramento, California, on this day of 10th 1997.

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ESTHER F. WIATRE  
CSR NO. 1564